

A Call to Action: Help Dramatically More Patients Recover From Addiction



Join the treatment center
leaders using outcomes
research to make their
treatment more effective



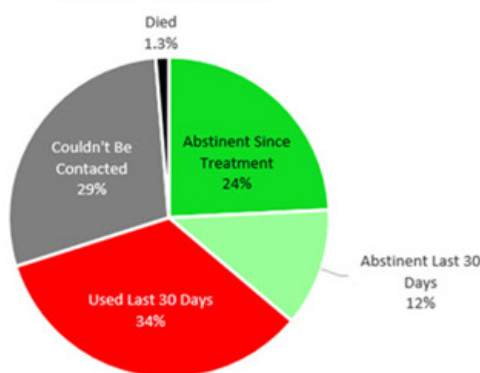
A Call to Action: Help Dramatically More Patients Recover from Addiction

Due to extreme pandemic-related stresses and the lacing of many street drugs with frighteningly-potent synthetic opioids, [fatal drug overdoses skyrocketed in 2020](#). The high risk that a relapse could prove fatal makes it more critical than ever that every patient entering addiction treatment receive the absolute best treatment possible. But while most addiction treatment professionals are personally doing everything they can to help their patients, the industry suffers from its long-held reluctance to invest in research tools to prove and continually improve the effectiveness of the treatment provided.

Unfortunately, this resistance has kept the field from seeing the treatment effectiveness improvements common in other healthcare fields. Patients attending abstinence-based addiction treatment centers today are no more likely to be in recovery one year after discharge than patients in treatment in the early 1990s:

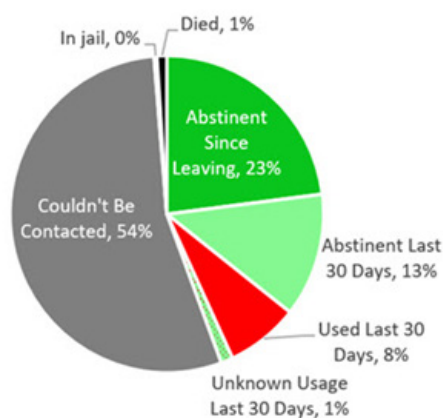
Abstinence at One Year Post-Treatment

DATOS
(among 3,194 adult patients discharged prior to 6/30/1993)



Abstinent Last 30 Days: 36%

Vista Research Network
(among 3,968 adult patients discharged between 7/19/16 and 10/31/2019)

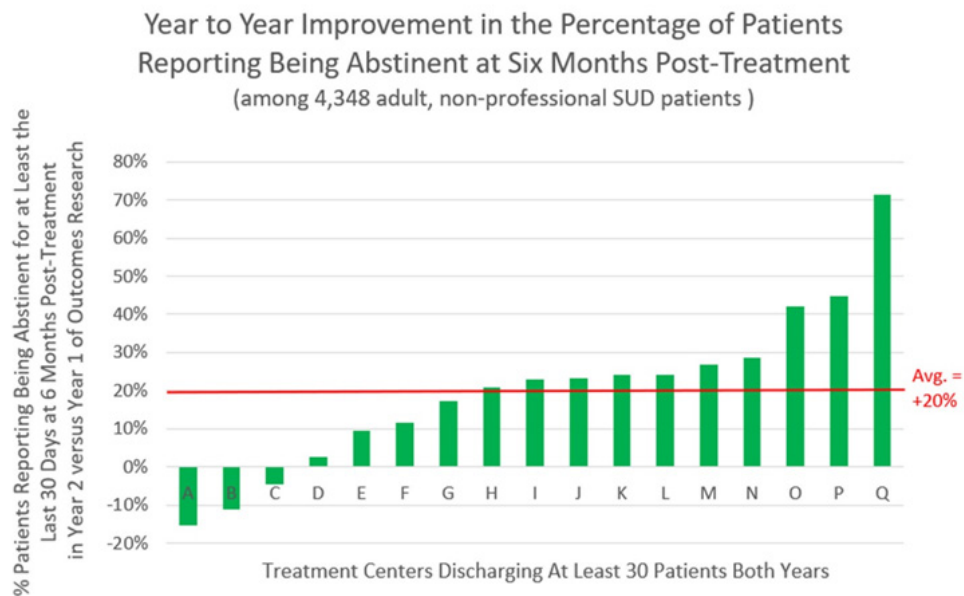


Abstinent Last 30 Days: 36%

Fortunately, a small group of addiction treatment center leaders are showing the industry a simple process they can follow to help more patients recover.

These 17 centers have been using state-of-the-art outcomes research for multiple years to monitor their patients during treatment and follow up with them post-treatment. And their results are impressive:

More patients are in recovery in 82% of the centers (14 out of 17) during the second year the center is doing outcomes research compared to the first



Source: Vista Research Group, Inc.

And among patients who attended these centers:

20% more patients reported being in recovery six months post-treatment during the center's second year of outcomes research compared to its first

The fact that these centers spent an average of only \$26,000 per year on outcomes research to achieve these impressive improvements is even more stunning.

WHY OUTCOMES RESEARCH IS SO EFFECTIVE

Over the course of monitoring 40,000+ patients during addiction treatment and following up with more than 10,000 of them post-treatment, Vista Research Group has identified three primary ways in which outcomes research improves treatment effectiveness:

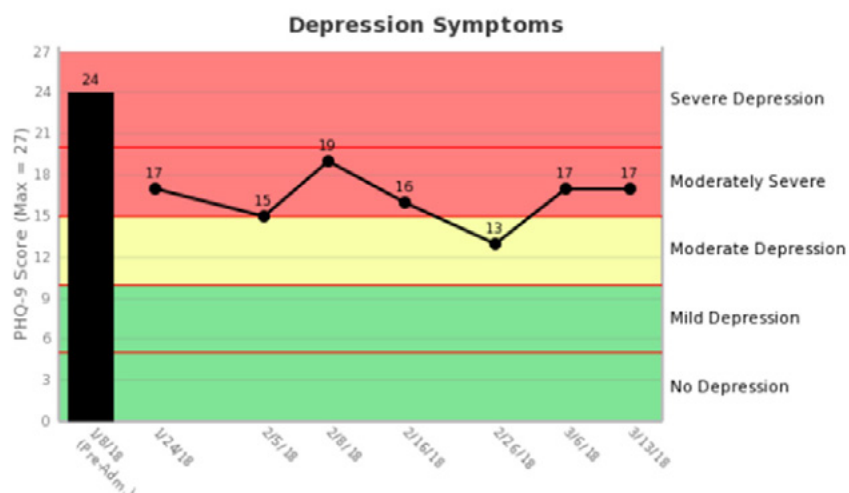
1. Showing clinicians in real-time how their patients are feeling helps clinicians easily monitor the progress each individual patient is making and personalize the care they provide.
2. Systematically measuring the percentage of patients who are achieving their drug and alcohol usage goals after treatment provides center leaders with an objective measure of how effective their treatment is and whether this is improving over time.
3. Comparing their center's aggregated metrics to norms for similar treatment programs allows managers to develop and monitor progress on performance improvement plans.

Regardless of which outcomes measurement system your center utilizes, your organization will maximize the benefits you receive by using it in all three of these ways.

Personalizing Individual Patient Care

As [Dr. Ingrid Carlier's research shows](#), the process of asking patients how they're feeling and reporting the results back to their clinicians in an easy-to-understand way improves treatment outcomes. Vista has found that such patient monitoring helps patients get better faster in three primary ways:

1. **Monitoring identifies when patients aren't progressing as well as expected.** A clinician who's been meeting regularly with a patient may assume that his or her levels of co-occurring disorders, suicidal thoughts and cravings are improving over time. If this is not happening, graphs showing how the patient responded to assessments over time will make this very clear so that changes to the treatment plan can be considered:



2. **Screening all incoming patients for common co-occurring disorders will identify previously-undiagnosed issues in many patients.** Identifying issues such as severe anxiety or trauma at the start of treatment allows clinicians to spend the entire treatment episode addressing the issues.
3. **Instantaneous alerts allow clinicians to respond in real time to serious issues such as suicidal thoughts or drug/alcohol usage.** One Clinical Director of a mid-sized Vista Research Network center reports that the alerts they received allowed them to save the lives of three patients contemplating suicide during a 21 month period.

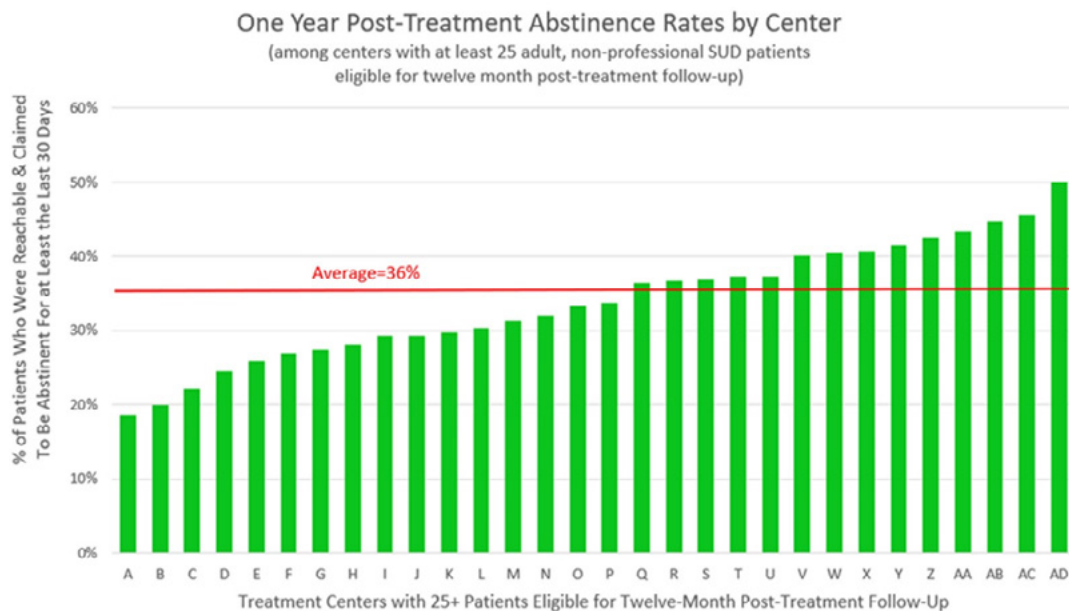
Objectively Assessing Recovery Success

The bottom line for how effective an addiction treatment center is simple – how many of the center’s patients are achieving their drug and alcohol usage goals six or twelve months after treatment? Unfortunately, there has not been an objective, affordable way to measure this critical success rate until recently.

As a result, treatment center leaders have relied on anecdotal evidence to guesstimate how effective the treatment they’re providing is. And human nature being what it is, most treatment center leaders truly believe that their center’s treatment is substantially more effective than average.

Unfortunately, this is impossible.

Vista’s research among well-respected, abstinence-based SUD centers across the U.S. shows that the percentage of patients who are reachable and abstinent one year after discharge varies tremendously:



Source: Vista Research Group, Inc.

Once a program objectively measures their success rate, managers can focus on creating pertinent performance improvement plans to continually improve it. For Peter Drucker was right:

“What gets measured gets managed”

Creating Effective Performance Improvement Plans

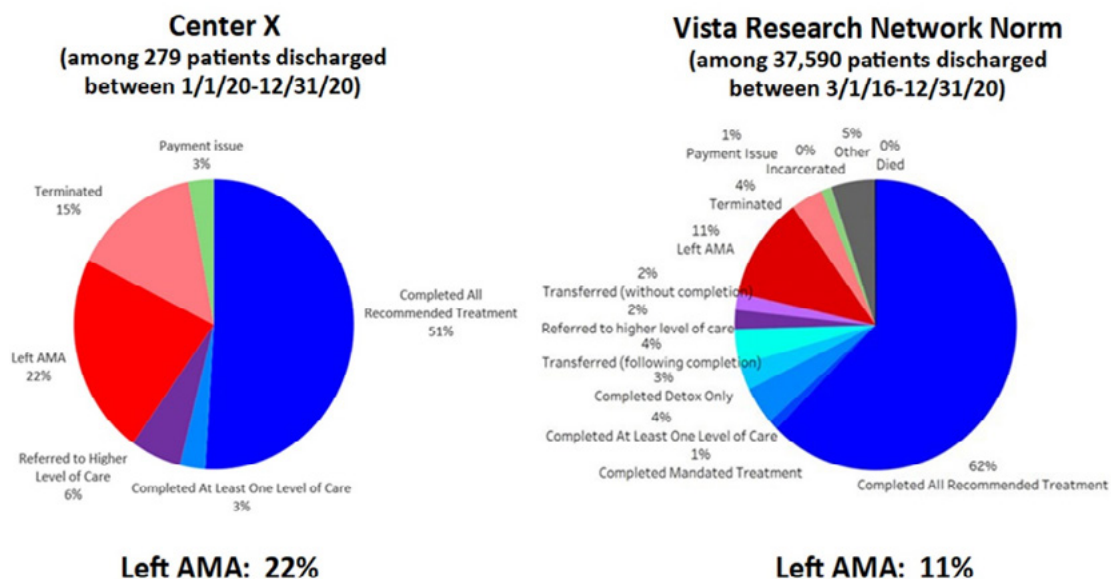
Organizations systematically collecting patient data are able to use their aggregated results to develop and measure progress against detailed performance improvement plans.

Vista’s data analytics platform enables centers to analyze more than 50 patient-reported metrics by program, clinician and time period. This allows managers to do a wide range of analyses such as the following:

Comparisons to National Norms

The number of patients leaving Center X against medical advice is substantially greater than the norm for programs in the Vista Research Network:

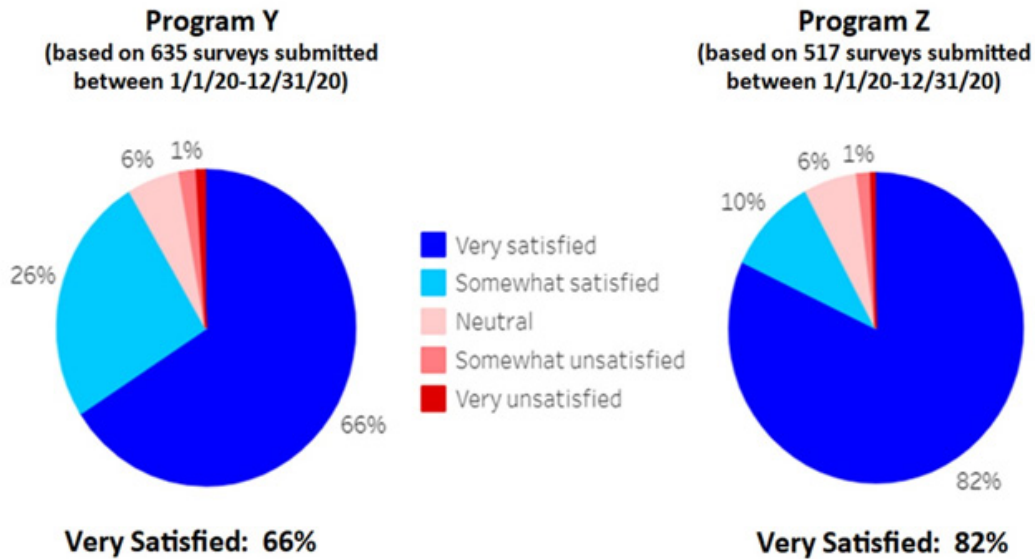
Treatment Completion Rates vs. Norm



Comparisons Between Programs

Patients enrolled in Program Y are less satisfied than patients in Program Z:

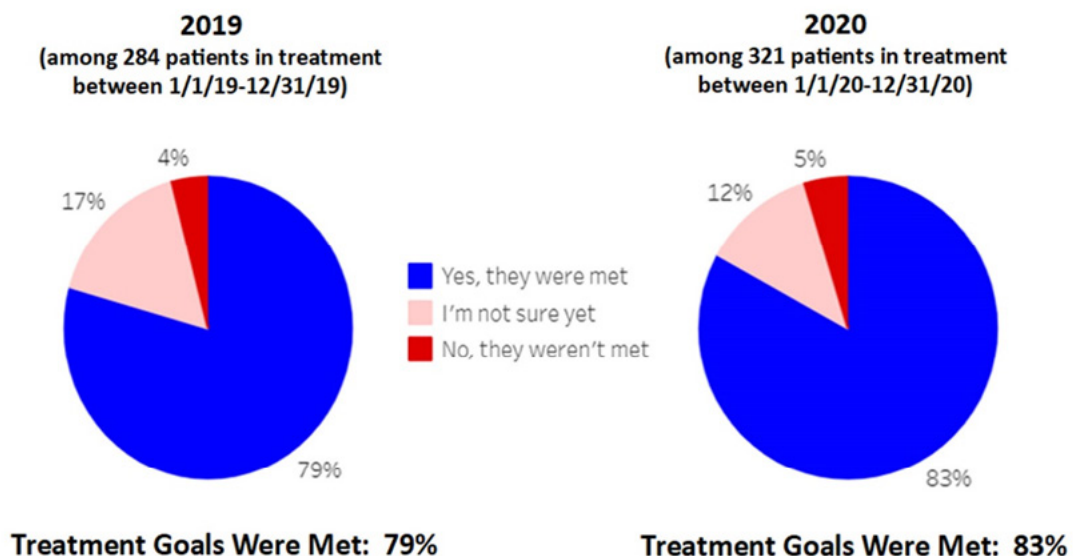
Patient Satisfaction Comparison Between Programs



Comparisons Over Time

The percentage of patients saying their treatment goals have been met has increased since last year:

Improvement in Meeting Treatment Goals Over Time



Comparisons Between Clinicians

A higher percentage of Clinician Z's patients are still feeling moderate to severe depression at the end of treatment compared to patients being treated by other center clinicians:

Patient Progress on Depression by Clinician

Clinician Z's Patients
(among 65 patients in treatment
between 1/1/20-12/31/20)

Patient Progress on Depression Symptoms

Severe Moderately Severe Moderate

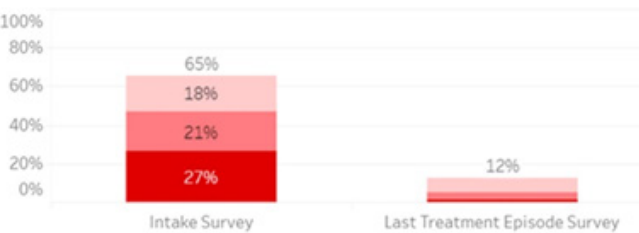


**Moderate/Severe Depression on
Last Survey: 18%**

Other Clinicians' Patients
(among 262 patients in treatment
between 1/1/20-12/31/20)

Patient Progress on Depression Symptoms

Severe Moderately Severe Moderate



**Moderate/Severe Depression on
Last Survey: 12%**

Centers who are relatively new to monitoring patients may also find it helpful to set goals related to how effectively their staff is utilizing the research:

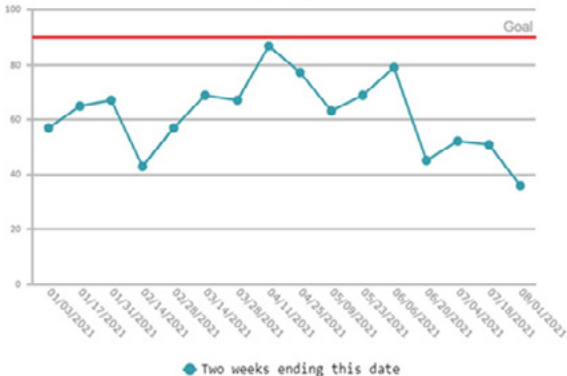
Implementation Metrics:

Patients in Program X are submitting fewer weekly update surveys than patients in Program Y:

Update Survey Submission by Program

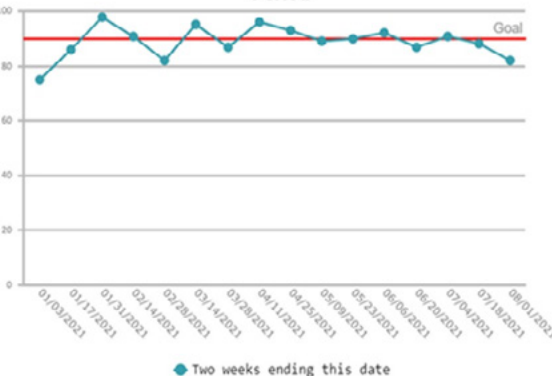
Program X

% of Patients Submitting an Update Survey in Two Week Period



Program Y

% of Patients Submitting an Update Survey in Two Week Period



Treatment centers often set annual performance improvement goals in areas where the center's results are poorer than norms for similar treatment centers. To facilitate these comparisons, the appendix of this report contains averages for a wide variety of patient-reported metrics for 40,000+ patients attending substance use disorder treatment centers in the Vista Research Network over the last 5 years. Vista's [norms for adolescent addiction treatment centers](#) are available separately, as are [norms for outpatient-only addiction treatment centers](#) and [norms for programs providing primary mental health treatment](#).

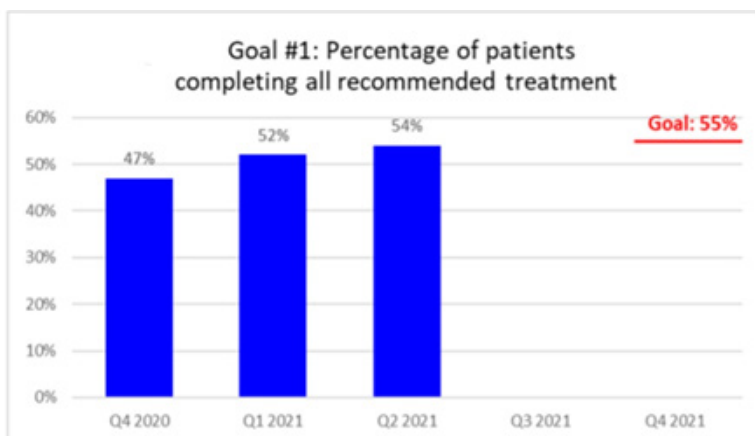
In our experience, most performance improvement goals will fall into one of these categories:

- [Patient progress during treatment](#)
- [Reasons why patients left treatment](#)
- [Patient satisfaction during treatment](#)
- [Post-treatment success rates](#)

Recognizing that the underlying goal for all performance improvement initiatives is to help more patients recover, we recommend that centers pay particular attention to several factors that are within the center's or the patient's control and that Vista's research shows have a substantial impact on the ability of patients to remain abstinent:

- [Successfully completing treatment](#)
- [Treatment center effectiveness](#)
- [Length of treatment stay](#)
- [The actions patients take to help themselves remain abstinent](#)
- [Level of anxiety and PTSD symptoms at discharge](#)

For step-by-step assistance with this process, Vista Research Network members can participate in a [Performance Improvement Workshop Series](#) offered every January. During five 90-minute online workshops, teams from each treatment center work together to analyze their center's outcomes, develop a list of possible improvement goals, and brainstorm potential solutions with their peers across the country. By the end of five weeks, each center has developed two or three specific performance improvement goals they plan to achieve during the coming year as well as detailed action plans and specific metrics they'll use to measure success. At the end of each quarter, Vista provides updates on the progress the center has made in meeting each of their goals:



ADDICTION TREATMENT IN 2025: A VISION OF THE FUTURE

We're just at the starting gate for using outcomes research to help more addiction treatment patients recover. With leadership throughout the recovery community, the field of addiction treatment can achieve the following vision by 2025:

- All reputable treatment centers are utilizing outcomes research to monitor patients during treatment and measure their patients' success in achieving their drug and alcohol usage goals post-treatment. As a result of this focus, the percentage of addiction treatment patients achieving long-term recovery after treatment has increased each year.
- Consumers regularly use independently-validated success rates on nonprofit websites such as [Conquer Addiction](#) to choose the best addiction treatment programs for their family members to attend.
- Payers partner with treatment centers that have demonstrate how much their treatment saves the payer in post-treatment medical expenses. Using [the Caron Foundation's agreement with Independence Blue Cross](#) as a model, payers give centers the flexibility to manage patient care themselves in return for a lump sum reimbursement. In return, centers agree to accept any patients who relapse within 90 days back into treatment at no cost.

The building blocks for achieving this exciting vision are in place. And now it's up to you:

What Role Will You Play in Helping More Patients Recover?

If you're interested in joining an informal group of addiction treatment leaders working together to help more patients recover, [let us know](#). We'll notify you of the group's next meeting.



By working together, we can help dramatically more patients recover from addiction by 2025.

Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.

Margaret Mead



Joanna L. Conti

Founder & CEO, Vista Research Group, Inc.

Founder & Chairman of the Board, Conquer Addiction, Inc.

August 12, 2021



Vista Research Group, Inc.

1330 Cape St. Claire Road, #656

Annapolis, MD 21409

🌐 www.vista-research-group.com

✉ jconti@vista-research-group.net

☎ Office: (800) 215-3201

APPENDIX

13

How Vista Does Outcomes Research

- [a. Research Methodology](#)
- [b. Shortcomings Of Self-Reported Patient Data](#)
- [c. Comparison to the DATOS Outcomes Research](#)
- [d. Demographics of Vista's Patients](#)

21

Quality Abstinence-Based Treatment Helps Most Patients Feel Better

- [a. Patients Typically Arrive in Treatment Quite Sick](#)
- [b. Almost All Patients Are Dealing With Severe Substance Use Disorder](#)
- [c. Patients Have Diverse Life Goals That They Hope to Achieve](#)
- [d. Most Patients Make Tremendous Progress during Treatment](#)
- [e. Two-Thirds of Patients Successfully Complete Treatment](#)
- [f. Patient Satisfaction With Treatment Is High](#)

34

Treatment Improves the Quality of Many Patients' Lives

- [a. Many Patients Succeed in Abstaining from Drugs and Alcohol](#)
- [b. Even Patients Who Relapse Often Reduce How Frequently They Use](#)
- [c. Patients Report Being Healthier Mentally and Physically](#)
- [d. The Quality of Many Patients' Lives Improves Substantially by Twelve Months Post-Treatment](#)

42

Many Factors Affect a Patient's Ability to Remain Abstinent

- [a. Successfully Completing Treatment](#)
- [b. Treatment Center Effectiveness](#)
- [c. Length of Treatment Center Stay](#)
- [d. Primary Drug of Choice](#)
- [e. The Actions Patients Take to Help Themselves Remain Abstinent](#)
- [f. Patient Motivation to Remain Abstinent](#)
- [g. Smoking Status](#)
- [h. Level of PTSD Symptoms at Discharge](#)
- [i. Number of Previous Substance Use Disorder Treatment Episodes](#)

53

Relapse, When It Happens, Tends to Happen Quickly

HOW VISTA DOES OUTCOMES RESEARCH

RESEARCH METHODOLOGY

Vista Research Group, Inc. provides two types of research to addiction treatment and behavioral healthcare facilities:

- INSIGHT Addiction™, INSIGHT Detox™, and INSIGHT Behavioral™ monitor patients while they're in treatment and provide real-time results to their clinicians in easy-to-read graphs to inform clinical care.
- RECOVERY 20/20™ follows up with patients at 1 month, 6 months and 12 months post-treatment to confidentially learn how they're doing and whether they've been able to meet their drug- and alcohol-usage goals post-treatment.

All Vista clients use INSIGHT™ products to monitor their patients during treatment. The majority of Vista clients also use RECOVERY 20/20™ to follow up with at least a random selection of their patients after discharge.

All INSIGHT and RECOVERY 20/20 data is patient-reported. In most cases, patients complete online surveys themselves using a tablet, cell phone or computer. Occasionally, patients are asked the survey questions by an outcomes researcher who types their answers directly into the survey tool during the interview.

Enrollment in Research: Patients entering treatment start the enrollment process by submitting a HIPAA-compliant online permission form that gives Vista Research Group permission to collect their personal health information, share their results with their treatment center, and contact them both during and at one month, six months and twelve months after treatment. In most states, a parent or legal guardian must also provide permission for adolescents to be enrolled in the research. Patients can opt out of the research at any time.

Collecting Intake Data: Once patients have given their permission for the research, they're asked to complete an intake questionnaire that does the following:

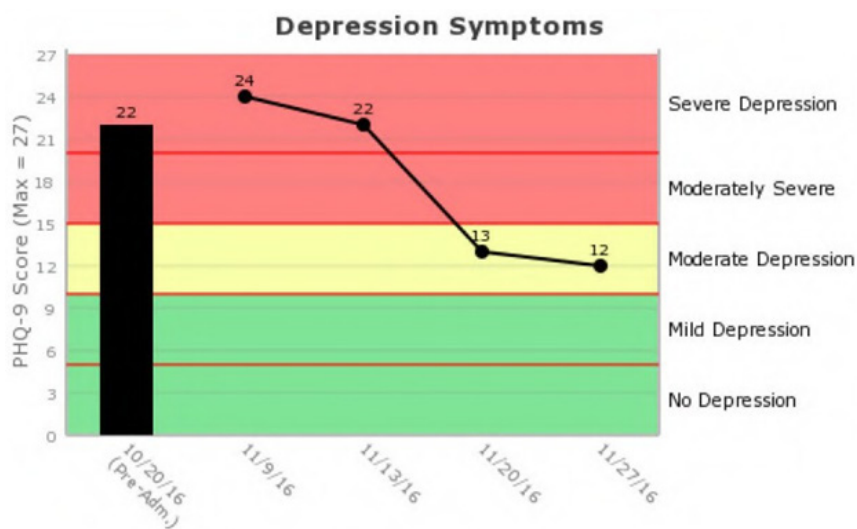
- Collects basic demographic and health information
- Determines their primary drug of choice, quantifies their drug and alcohol usage pre-treatment, assesses the severity of their addiction, and identifies the factors that led them to enroll in treatment

- Screens patients for common mental disorders and self-harming thoughts or behaviors using simple yes/no questions that have been academically validated to predict whether a patient is likely to be experiencing that disorder
- Uses academically-validated instruments designed for patient self-report to assess the severity during the 30 days prior to treatment of the common mental disorders and self-harming thoughts or behaviors that patients screened positively for

The intake questionnaire typically takes patients 15 to 25 minutes to complete online. At the center's discretion, patients in acute withdrawal from drugs or alcohol can complete the intake survey in two sittings. In this case, questions about co-occurring disorders are not asked until the second part of the intake questionnaire and the patient's emotional or physical withdrawal symptoms are monitored during the beginning of treatment instead of their co-occurring disorder symptoms.

Monitoring Patients During Treatment: Patients update their clinicians on how they are feeling throughout their time in treatment by completing 2- to 3-minute surveys that have been customized to ask only the questions that are relevant to that patient. Vista recommends that patients provide update surveys on a weekly basis for at least the first month of treatment. Once the patients have reported only mild symptoms of any mental disorders, self-harming thoughts or cravings for at least three surveys in a row, Vista extends the recommended update frequency to every other week. Regardless of Vista's recommendations, the frequency and timing of the update survey requests is completely at the discretion of the treatment provider, who can request an update survey for a particular patient at any time.

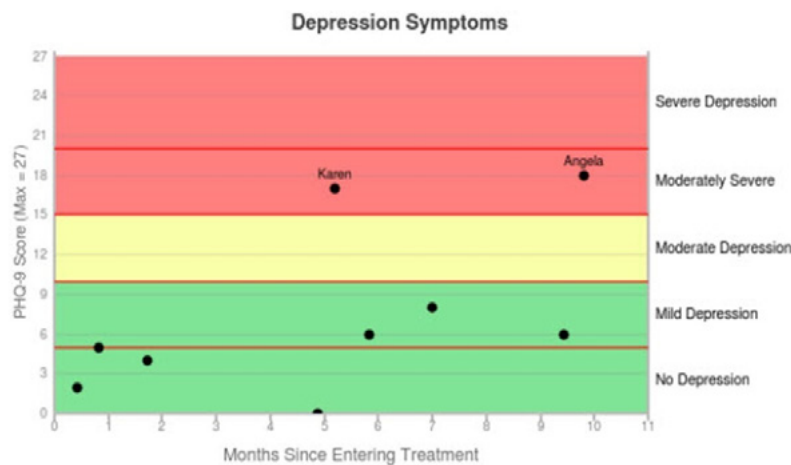
All data is shared with clinicians in real-time in easy-to-understand graphs such as the following:



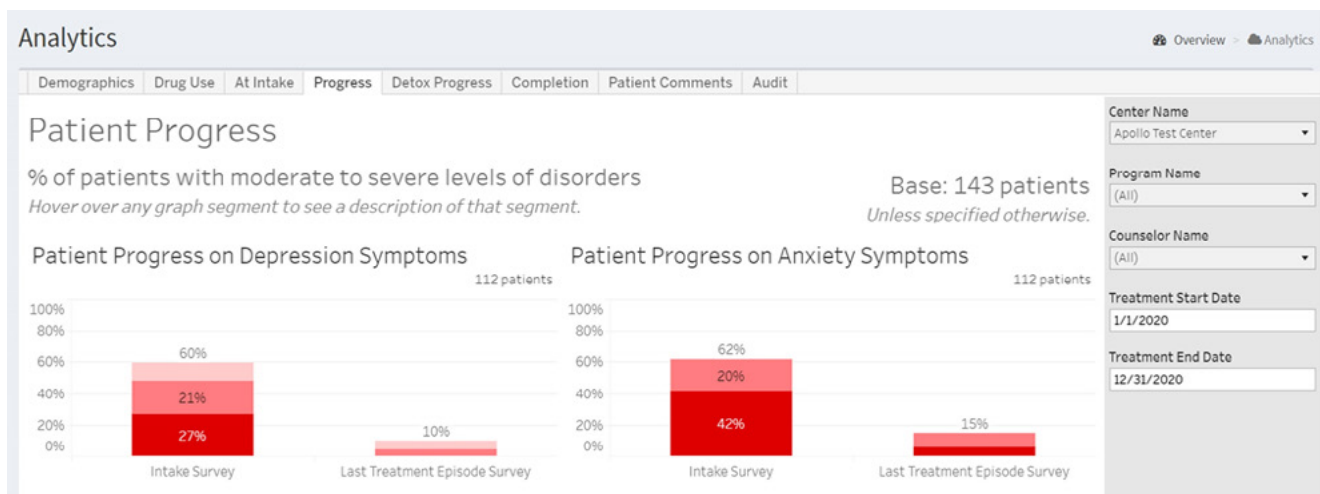
This graph depicts a patient reporting symptom of severe depression (as measured by a PHQ-9 score of 22) during the 30 days before he or she started treatment. Over the following two months, the severity of the patient's depression improved markedly.

Patients who report that an update survey is likely to be the last one they are asked to complete prior to leaving treatment are asked additional questions about treatment goals and their treatment experience.

Clinicians and treatment center leaders can also see how all patients being monitored for a specific disorder reported feeling in their most recent survey in a group summary report. Patients reporting symptoms in the yellow or red "danger zone" are identified by name:



Finally, treatment center managers can analyze aggregated patient-reported metrics by date, by program and by clinician:



Post-Treatment Outcomes: All patients who have spent at least 7 days in treatment are eligible for post-treatment follow-up. For centers who discharge less than 275 patients per year, Vista follows up with all eligible patients. Larger treatment centers can choose either a set number of patients or a certain percentage (such as 12.5%) to be contacted post-treatment. In such cases, the specific patients Vista follows up with are randomly selected from among the total pool of eligible patients by computer algorithm.

Vista promises to keep the information patients tell us about how they're doing completely confidential and to only report post-treatment results to the treatment center in aggregate. However, if a patient admits relapsing, they are asked at the end of the survey if they would like someone from their previous treatment center to contact them to potentially discuss going back into treatment. If they answer affirmatively, Vista immediately notifies the treatment center's admissions team.

Vista makes up to 15 attempts to contact a patient by text, email and phone for each survey. Outreach attempts start as early as 5 days before the survey due date and continue for one month after the due date. However, the majority of all responses (70%) are received within 7 days of the actual due date. Vista rewards the patient for completing their surveys by providing them with a low-value (\$5 to \$20) Starbucks or Target gift card.

If Vista is unable to contact the patient, the researchers also reach out to family members or friends who the patient has given permission for Vista to contact. When the researchers explain why they are calling and ask for updated patient contact information, they sometimes learn that the patient is back in treatment, in jail or has died. This information is also tracked.

Patient response rates vary substantially among treatment centers depending upon a number of factors, including how effectively the center has implemented INSIGHT, whether patients are reminded about and encouraged to participate in the post-treatment research at discharge and, of course, the effectiveness of the treatment provided. Overall, Vista was able to learn how between 46% and 56% of the patients were doing for each of the surveys during this period:

Post-Treatment Response Rates for Patients
Discharged Between 7/1/16 and 10/31/20

	1 Month	6 Months	12 Months
Total Patients	9,627	6,683	3,968
Patient Responded	54.2%	45.7%	44.4%
Reputable Source	<u>1.9%</u>	<u>2.4%</u>	<u>2.0%</u>
Total Reached	56.2%	48.1%	46.3%

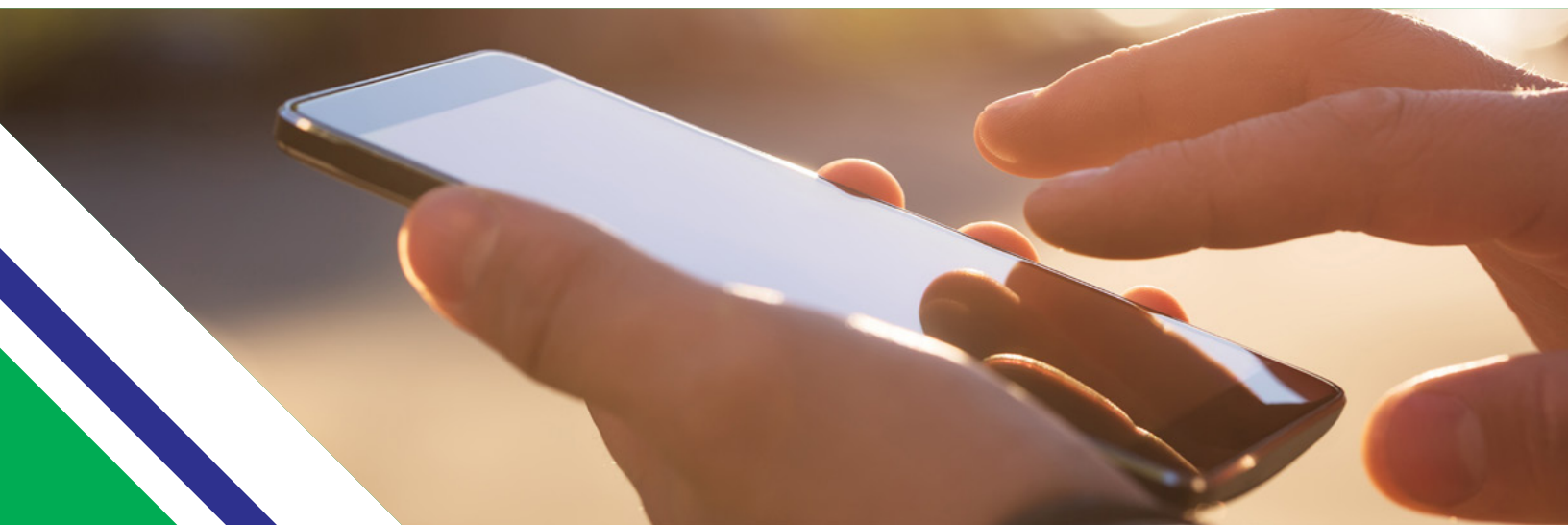
Shortcomings Of Self-Reported Patient Data

The fact that Vista's research is entirely based on patient self-report is, of course, a significant shortcoming. While Vista has done what it can to encourage patient honesty, there's no avoiding the fact that people with a substance use disorder often lie about their use.

The fact that some of the respondents undoubtedly lied about being abstinent is at least partially counterbalanced by two factors:

- The research assumes that if a patient wasn't reached, they were not abstinent. In fact, it's highly likely that quite a few of the patients who did not respond to Vista's survey requests simply had changed their phone number or didn't value a small gift card enough to spend 10+ minutes completing a survey.
- Vista adjusts the data to assume the worst whenever there are inconsistencies between a patient's responses on different post-treatment surveys. For example, if a patient reported having abstained from all drugs and alcohol on their one-month survey and then reported on their six-month survey that they had relapsed within one week of leaving treatment, their one-month results are changed from "Abstinent" to "Not Abstinent".

In summary, Vista accepts that self-reported patient data is not perfect. However, it's hard to come up with a plausible rationale for why adult patients at one treatment center would be more likely to lie than those at another center, for example, nor why patients addicted to one primary drug of choice would be more likely to lie than those addicted to another. Therefore, as imperfect as this data undoubtedly is, Vista is confident that a tremendous amount can be learned by comparing the research results across different types of treatment, centers, and patients.



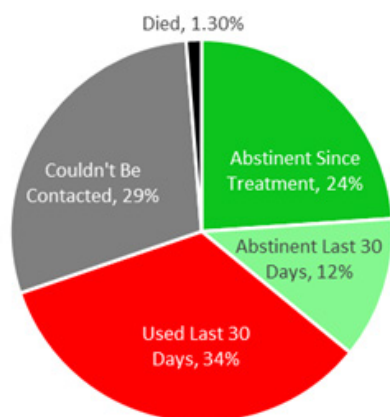
Comparison to the DATOS Outcomes Research

The last major federally-funded addiction treatment research study was the Drug Abuse Treatment Outcomes Study (DATOS) conducted in the early 1990s. While there have been major changes in the drug-abusing population during the intervening years (for example, cocaine was the primary drug of choice of a high percentage of the DATOS patients and residential treatment stays were typically much longer in the 1990s versus today), both outcomes studies found that 36% of patients were reachable and claimed to have been abstinent for at least the last 30 days at one year post-treatment:

Abstinence at One Year Post-Treatment

DATOS

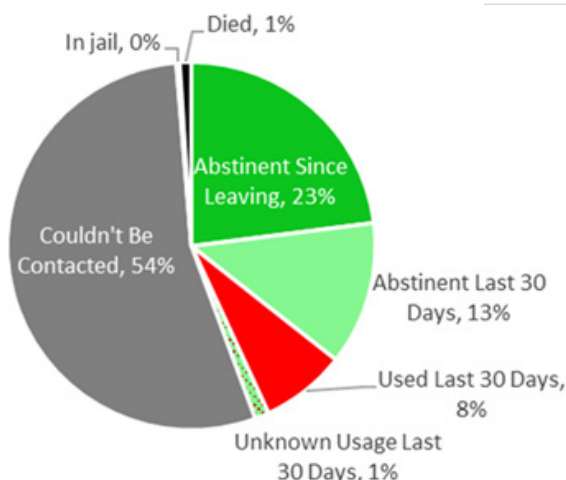
(Among 3,194 adult patients discharged prior to 6/30/1993)



Abstinent Last 30 Days: 36%

Vista Research Network

(Among 3,968 adult patients discharged between 7/19/2016 and 10/31/2020)



Abstinent Last 30 Days: 36%

Being publicly funded by a grant from the National Institute of Drug Abuse (NIDA), DATOS researchers were able to go to much further lengths to reach patients than Vista can afford to do. It is interesting to note, however, that the earlier study's ability to reach a higher percentage of patients did not lead to a higher abstinence rate; the biggest difference between the two outcomes is that 34% of the DATOS patients reported using drugs or alcohol in the last 30 days compared to only 8% of the Vista patients. This lends validity to the assumption inherent in the Vista methodology that if patients cannot be contacted, they have likely relapsed.

Demographics of Vista's Patients

Since the treatment centers using INSIGHT and RECOVERY 20/20 to date have been predominantly addiction treatment facilities accepting private insurance, the patients being monitored have a somewhat higher socioeconomic status than would be true if the research included a mix of commercial and government-funded facilities.

Demographic information for all adult SUD patients entering treatment and for patients from whom 12 month outcomes surveys were requested or received are summarized below.

Characteristic	All Patients In Treatment	Twelve Month Post-Treatment Survey	
		Requested	Completed
Number of Patients	41,093	3,968	1,839
Gender			
Male	65%	63%	57%
Female	35%	37%	42%
Transgender	0%	0%	0%
Age (years)			
Median	34	34	36
Ethnicity			
White, non-Hispanic	79%	83%	85%
Hispanic or Latino	8%	7%	7%
African-American	6%	4%	3%
Native American	2%	1%	1%
Asian	1%	1%	1%
Other	4%	4%	4%
Marital Status			
Single, never married	53%	51%	46%
Married	27%	29%	33%
Divorced	13%	13%	14%
Separated	6%	6%	5%
Widowed	1%	1%	1%

		12M Post-Treatment Survey	
	Total	Requested	Completed
Highest Level of Education Completed			
Attended high school, but have not graduated	8%	7%	6%
Have graduated from high school or received a GED	28%	24%	21%
Attended college, but have not received a degree	29%	31%	31%
Associate's degree	9%	8%	9%
Bachelor's degree	16%	17%	20%
Master's degree	5%	5%	7%
Ph.D. degree	1%	1%	1%
Other	5%	6%	6%
Employment Prior to Treatment			
Employed	64%	62%	65%
Working in the home	2%	3%	3%
Student	5%	6%	6%
Neither working or in school (by choice)	14%	16%	15%
Fired or kicked out	6%	6%	6%
In jail	1%	2%	1%
Other	10%	8%	7%
Living Arrangements Prior to Treatment			
Living in their own home, apartment or dorm room	51%	53%	57%
Living in their parent's, guardian's or other family member's home	24%	22%	22%
Living in a sober living environment, such as a half-way house	4%	4%	3%
Living in a place where they could stay as long as they wanted	4%	3%	2%
Total Stable Living Arrangement	84%	82%	84%
Moving from place to place	6%	6%	6%
In jail	1%	2%	2%
Homeless	5%	5%	3%
Other	5%	6%	7%
Total Unstable Living Arrangement	16%	18%	16%

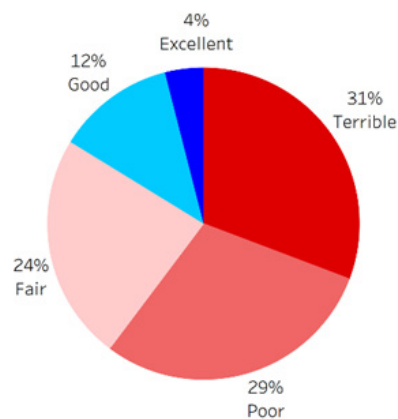
QUALITY ABSTINENCE-BASED TREATMENT HELPS MOST PATIENTS FEEL BETTER

a. Patients Typically Arrive in Treatment Quite Sick

Vista Research Group has surveyed more than 40,000 patients entering commercial abstinence-based treatment in the last five years about how they were feeling and what brought them to treatment. One very clear finding is that the vast majority of patients entering treatment are feeling sick.

60% of patients report feeling terrible or poor

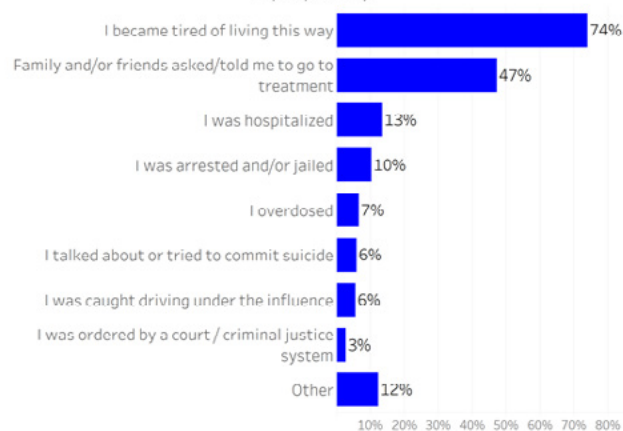
Overall Feeling Prior to Treatment
(Among 38,746 patients in treatment between 3/1/2016 and 12/31/2020)



Many patients have recently experienced a traumatic event

In the 30 days before they began treatment, 13% of the patients were hospitalized, 10% were arrested or jailed, 7% overdosed, 6% either talked about or attempted suicide, and 3% were ordered into treatment by the criminal justice system:

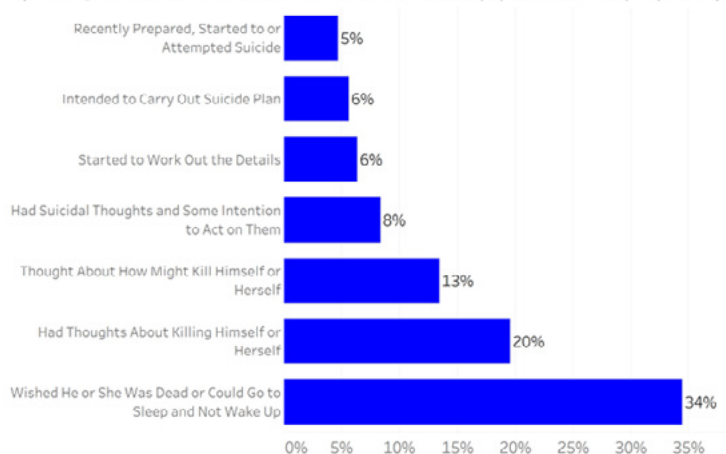
What Happened Right Before that Led to Treatment
(Among 41,093 patients in treatment between 3/1/2016 and 12/31/2020)



One-third of patients have been having suicidal thoughts

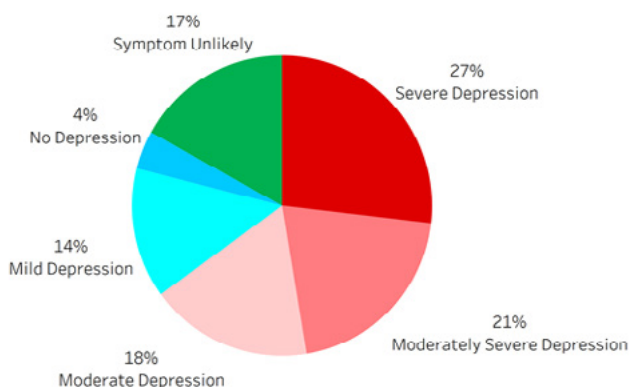
34% of patients report having recently wished they were dead or could go to sleep and not wake up, 20% had thought about killing themselves and 5% had actually prepared, started to or attempted suicide in the 30 days before starting treatment.

Suicidality in the Month Before Treatment (CSSRS)
(Among 41,093 patients in treatment between 3/1/2016 and 12/31/2020)



Nearly two-thirds (65%) are feeling moderately to severely depressed

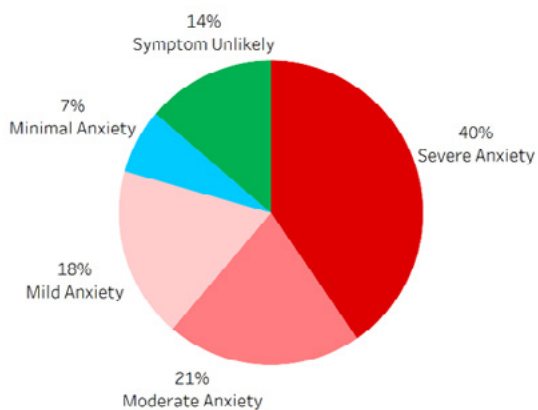
Depression Symptoms at Intake (PHQ-9)
(Among 38,822 patients in treatment between 3/1/2016 and 12/31/2020)



Note: The 17% of patients in the “Symptom Unlikely” segment were not asked to complete the PHQ-9 depression assessment scale at intake because they didn’t answer either of the screening questions for depression positively and, thus, were unlikely to be struggling with depression.

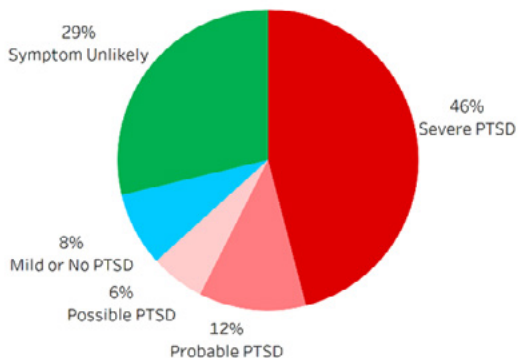
61% report having moderate or severe symptoms of anxiety

Anxiety Symptoms at Intake (GAD-7)
(Among 38,822 patients in treatment between 3/1/2016 and 12/31/2020)



57% report moderate to severe PTSD symptoms

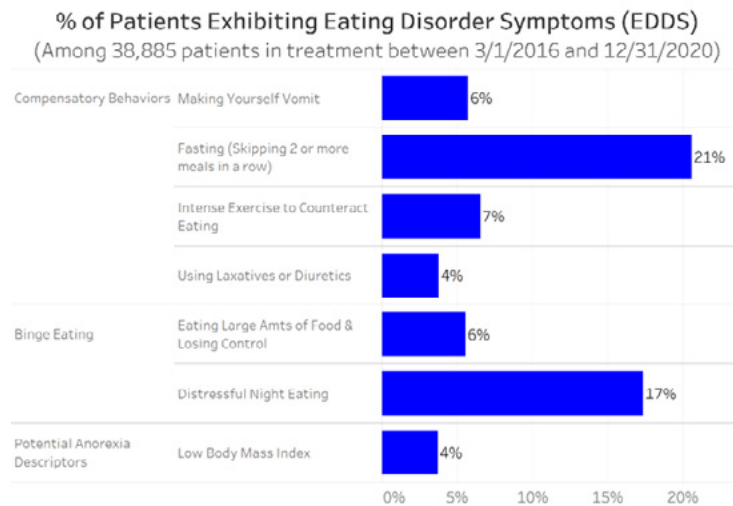
Trauma Symptoms at Intake (PCL-6)
(Among 38,822 patients in treatment between 3/1/2016 and 12/31/2020)



26% exhibit the symptoms of a moderate to severe eating disorder

33% of patients are reporting one or more eating disorder behaviors, with the largest percentage of patients reporting skipping two or more meals in a row (21%) or waking up to eat at night and/or eating a large quantity of food after dinner and being distressed by losing control during their night eating (17%).

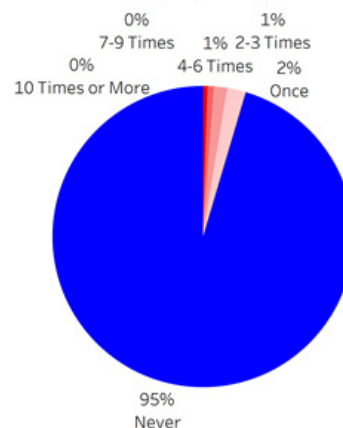
While some patients report a mixture of eating behaviors, 3.0% meet the clinical definition for bulimia nervosa, 1.1% meet the definition for binge eating disorder, and 4% are at high risk for anorexia nervosa due to having a body mass index below 18.5.



5% have self-harmed

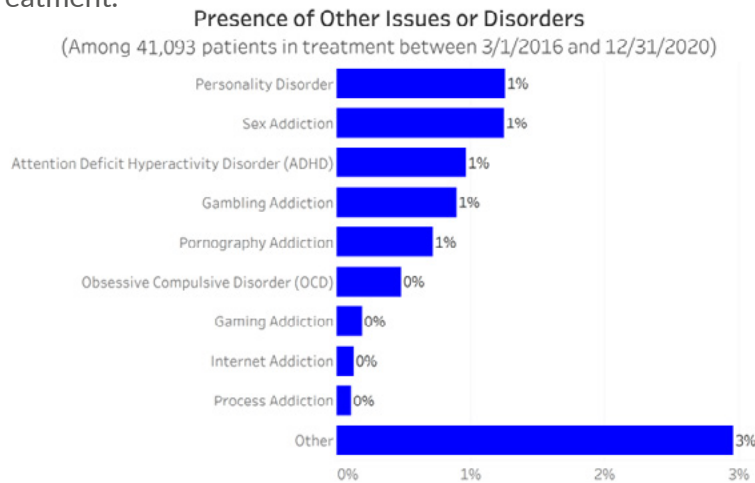
While only 5% of patients report harming themselves in the 30 days before treatment (such as by cutting themselves), 1% of patients report having done so 7 or more times.

Times Self Harmed in the 30 Days Before Treatment
(Among 41,093 patients in treatment between 3/1/2016 and 12/31/2020)



Some patients report struggling with additional addictions or disorders

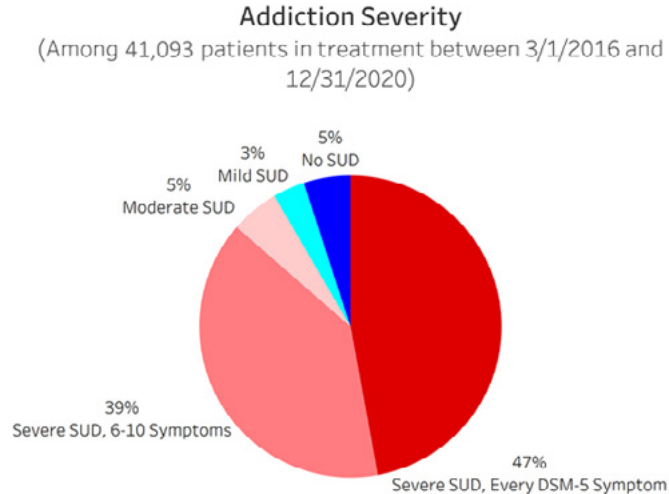
A small number of patients reported having other issues such as personality disorder (1%) or sex addiction (1%) that also played a role in their decision to enter treatment.



b. Almost All Patients Are Dealing With Severe Substance Use Disorder

86% of patients report moderate to severe symptoms of substance abuse disorder

A shockingly-high 47% of all patients reported having experienced every single one of the DSM-5 symptoms of substance use disorder during the year prior to starting treatment:



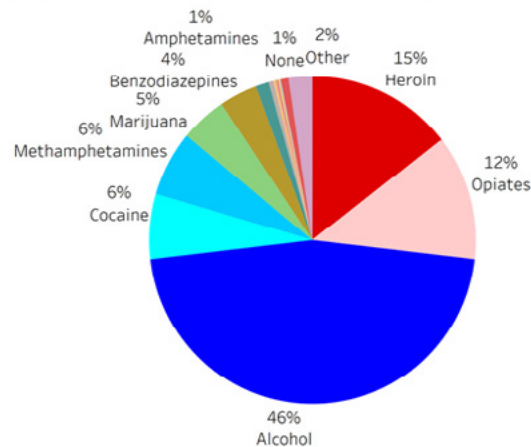
Another 39% reported having between six and ten of the eleven symptoms and 5% reported having four or five of the DSM-5 symptoms of substance use disorder.

Only 8% reported having fewer than four DSM-5 symptoms and, thus, not qualifying as having at least a moderate substance use disorder. While some of these patients may, in fact, have enrolled in a primary substance-use disorder treatment center before their symptoms became more severe in the hopes of avoiding worse problems in the future, it is also probable that some of these patients were simply denying the severity of their disorder.

Alcohol or opioids were the primary drug of choice for almost three-quarters (73%) of patients

Alcohol was the primary drug of choice for 46% of patients in treatment at centers in the Vista Research Network. The primary drug of choice for another 27% of the patients was either heroin or opiates.

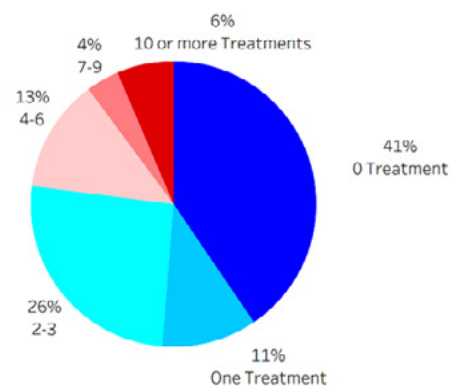
What is Your Primary Drug of Choice?
(Among 40,987 patients in treatment between 3/1/2016 and 12/31/2020)



Most patients have been in SUD treatment before

Fifty-nine percent (59%) have been in treatment for substance use disorder before, and 6% have been in treatment 10 or more times.

No. of Previous Treatments
(Among 41,093 patients in treatment between 3/1/2016 and 12/31/2020)

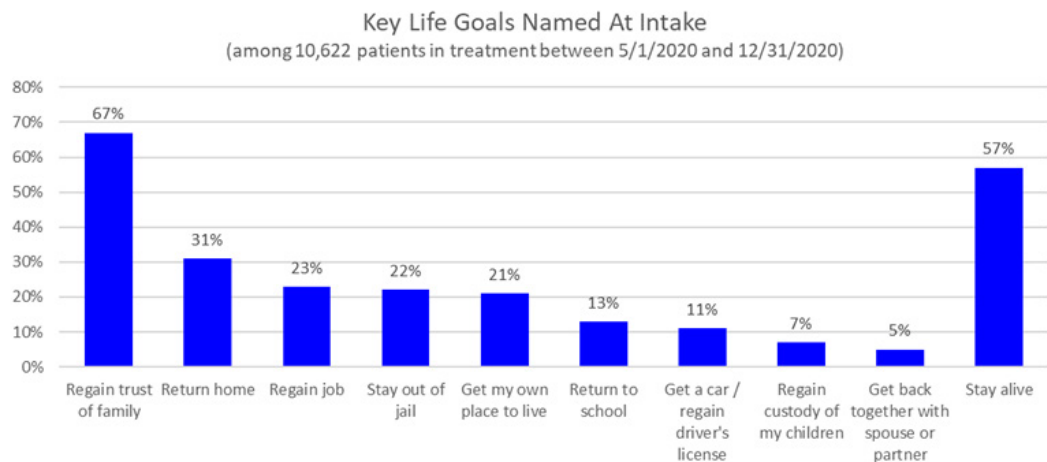


c. Patients Have Diverse Life Goals That They Hope to Achieve

67% of patients hope to regain the trust of their family by attending treatment.

For most patients in substance use disorder treatment, the desire to achieve abstinence is not the end of the story. Since May 2020, Vista has asked patients entering treatment what principal life goals they are hoping to achieve by overcoming their addiction.

Two-thirds of patients (67%) mention regaining the trust of their family as one of the critical reasons they want to overcome their addiction and almost one-third (31%) want to return home. For 57% of patients, an important goal is simply to stay alive:

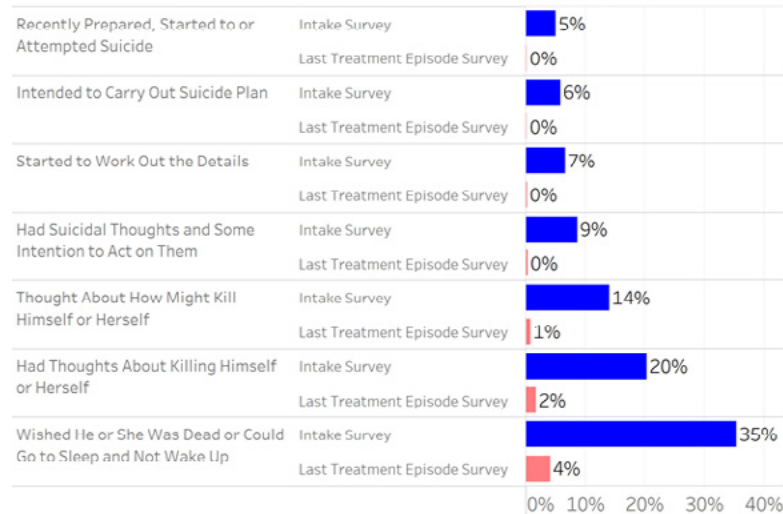


d. Most Patients Make Tremendous Progress during Treatment

Fortunately, the research shows that most patients start feeling substantially better soon after entering treatment and report a dramatic reduction in the severity of their symptoms prior to discharge.

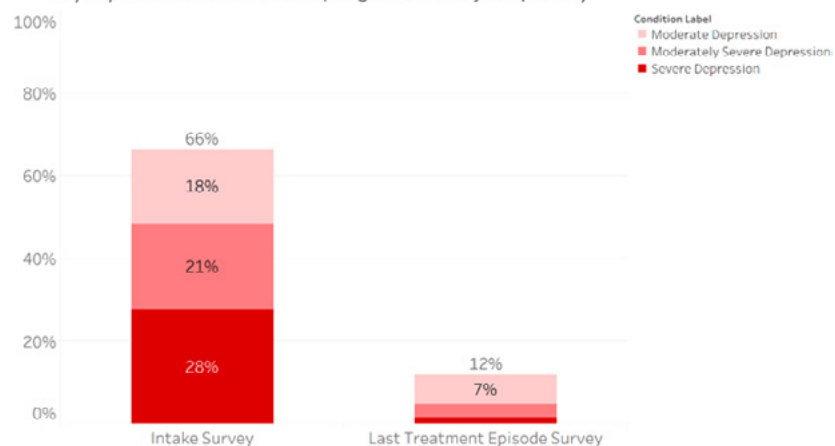
Only 4% of patients report any degree of suicidal thoughts on their last survey before discharge

Patient Progress On Suicidal Thoughts and Intentions
(Among 32,244 patients in treatment between 3/1/2016 and 12/31/2020 with at least 1 progress survey response)

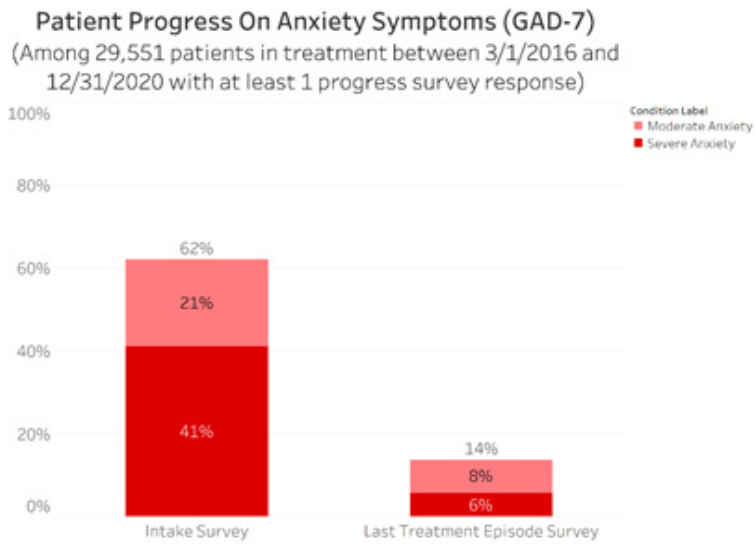


Only 12% are still feeling moderately or severely depressed by the time they leave treatment

Patient Progress On Depression Symptoms (PHQ-9)
(Among 29,551 patients in treatment between 3/1/2016 and 12/31/2020 with at least 1 progress survey response)

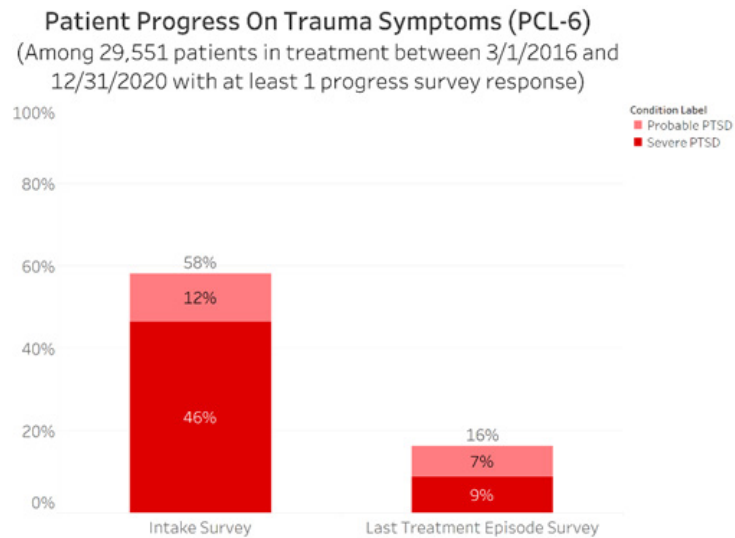


Only 14% still report feeling moderately or severely anxious prior to discharge



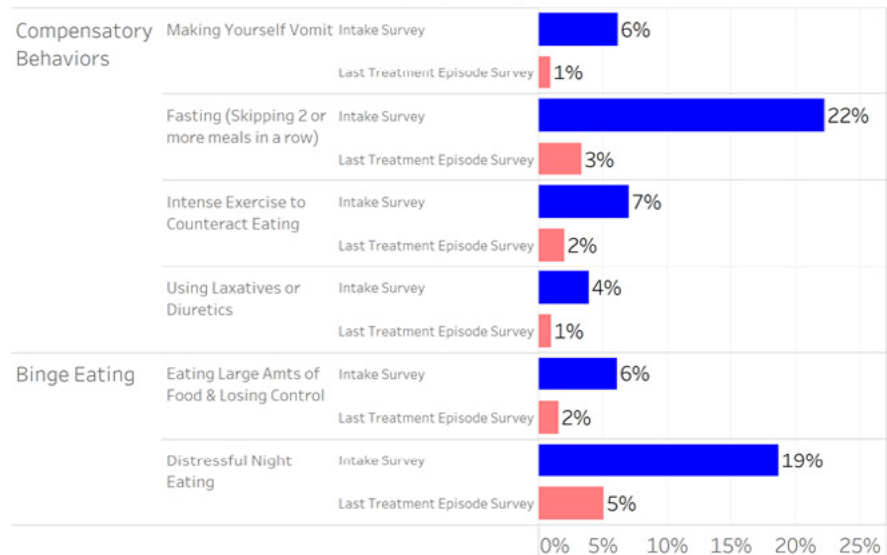
The level of PTSD symptoms also declines substantially during treatment

The percentage of patients reporting symptoms indicative of probable PTSD declines from 58% to 16% by the time they leave treatment.



The number of patients reporting disordered eating behaviors also decreases dramatically

% of Patients Exhibiting Eating Disorder Symptoms (EDDS) (Among 27,268 patients in treatment between 3/1/2016 and 12/31/2020)



Note: Since most patients were only asked about their weight at intake, it is unknown whether there was any improvement in their body mass index by the time they were discharged.

Only 0.2% of patients reported self-harming on their last survey before discharge

Patient Progress on Self Harm (among 30,139 patients in treatment between 3/1/2016 and 12/31/2020 submitting at least one update survey)

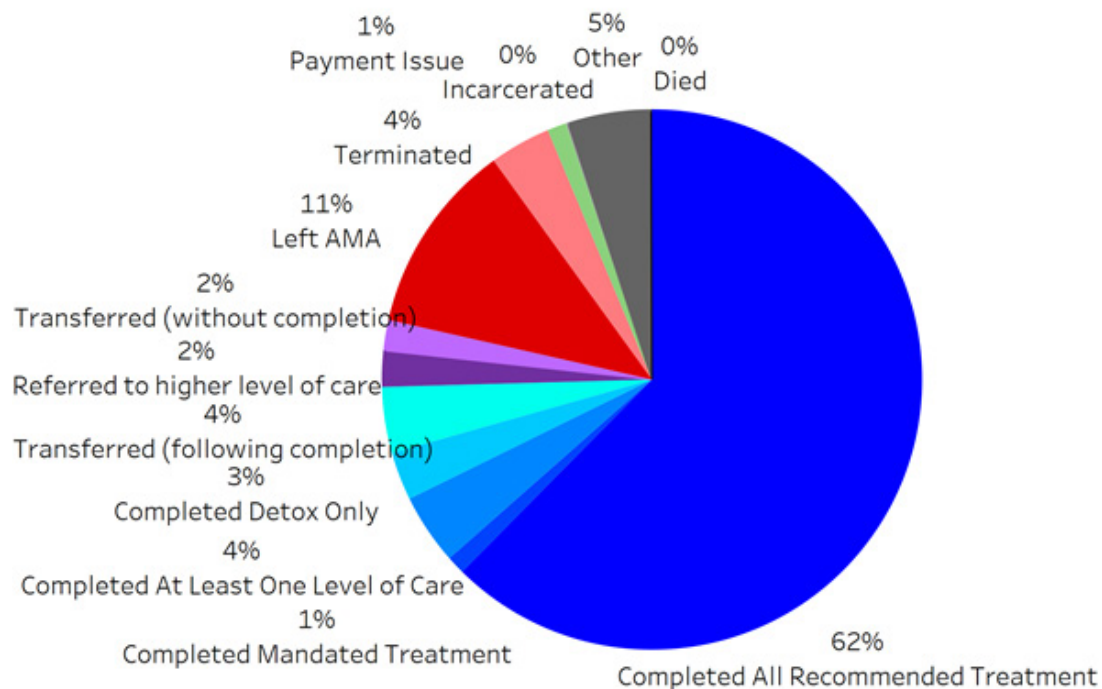


e. Two-Thirds of Patients Successfully Complete Treatment

While this varies considerably by type of treatment, 66% of patients enrolled in Vista's research successfully completed all recommended treatment, including 4% who transferred to another program elsewhere after completing their recommended treatment at the original center. An additional 8% completed either their mandated treatment or at least one level of care:

Treatment Completion

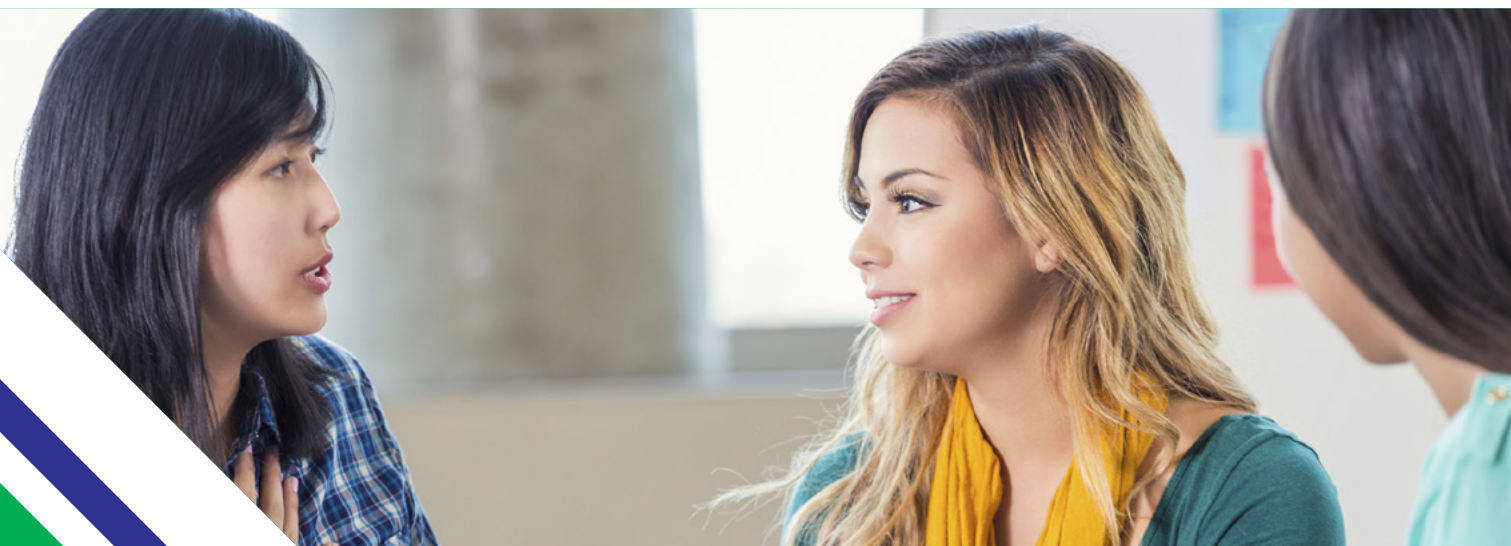
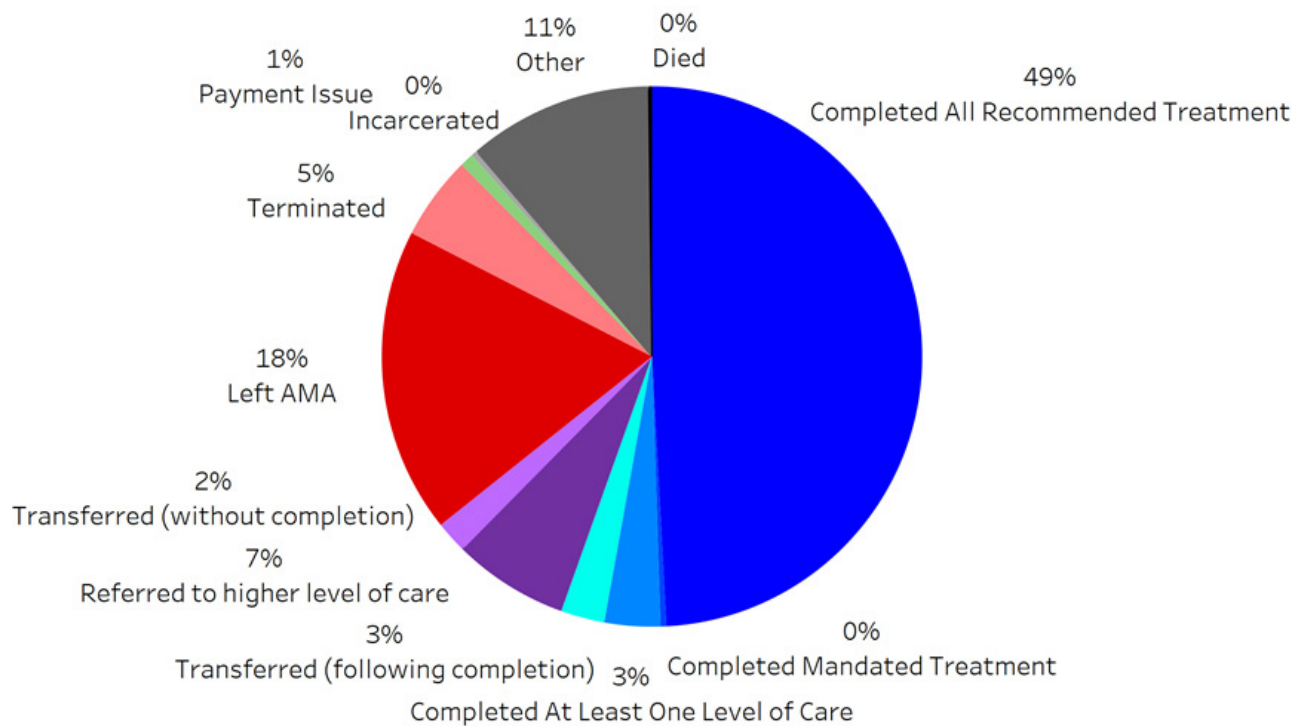
(Among 37,590 patients discharged from treatment between 3/1/2016 and 12/31/2020)



Most members of the Vista Research Network offer a continuum of care with both residential and outpatient treatment options. Among centers offering only outpatient treatment, treatment completion rates were somewhat lower. 52% of patients at these centers completed all recommended treatment (including those who transferred immediately to an equal or lower level of care) and another 4% completed either one level of care or their mandated treatment:

Outpatient-Only Centers Treatment Completion

(Among 3,240 patients discharged from treatment between 3/1/2016 and 12/31/2020)

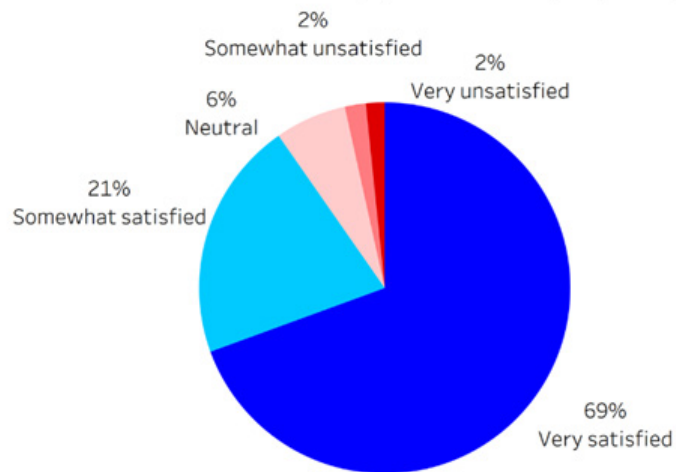


f. Patient Satisfaction With Treatment Is High

Patients reported being very satisfied with their treatment on over two thirds (69%) of their surveys

Altogether, patients reported being somewhat or very satisfied with their treatment on an astonishing 90% of the surveys they submitted throughout the time they were in treatment.

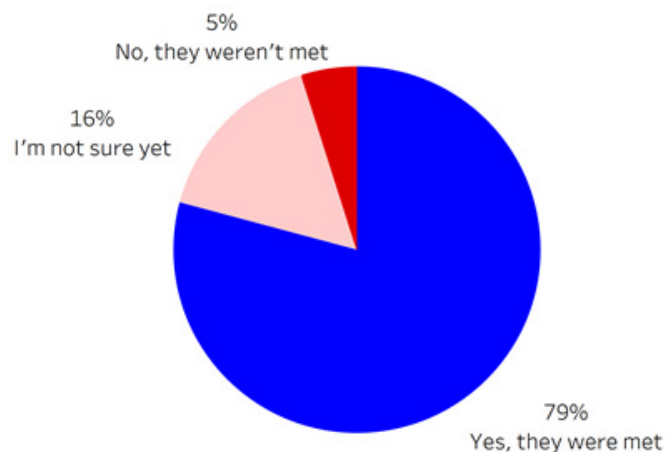
Patient Satisfaction with Treatment
(Based upon 144,966 patient reports for 32,244 patients in treatment between 3/1/2016 and 12/31/2020)



The majority reported that their treatment goals were met

79% of patients submitting what they expected to be their final survey prior to leaving treatment reported that their treatment goals had been met.

Were Your Treatment Goals Met?
(Reported by 17,761 patients on their final survey in treatment between 3/1/2016 and 12/31/2020)



TREATMENT IMPROVES THE QUALITY OF MANY PATIENTS' LIVES

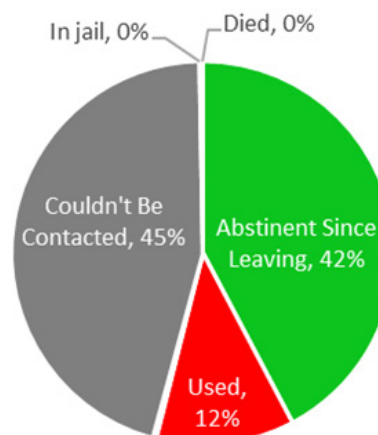
While we cannot extrapolate these results to patients who could not be contacted post-treatment, a high percentage of those who did respond report substantial improvements in the quality of their post-treatment lives.

a. Many Patients Succeed in Abstaining from Drugs and Alcohol

At one month post-treatment, 42.3% of patients were reachable and claimed to have not used any drugs or alcohol since leaving treatment

Another 12% of the patients admitted to having used drugs or alcohol since they left treatment one month earlier.

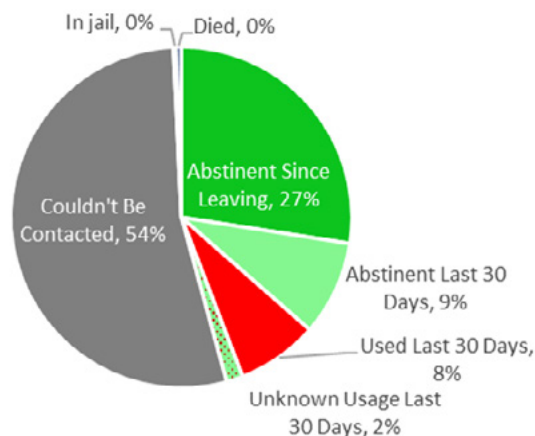
Abstinence At One Month Post-Treatment
(among 9,627 patients discharged up to 9/30/20)



At six months post-treatment, 36.5% of patients were reachable and claimed to have been abstinent for at least the last 30 days

At six months post-treatment, 27% of the patients reported that they had remained abstinent since treatment. Another 9% admitted to having used drugs or alcohol since treatment but claimed to have been abstinent for at least the last 30 days. 8% of patients were reachable and admitted using drugs and/or alcohol in the last 30 days. And, unfortunately, reputable sources reported that 0.5% of the 6,683 patients Vista attempted to reach at six months post-treatment had died.

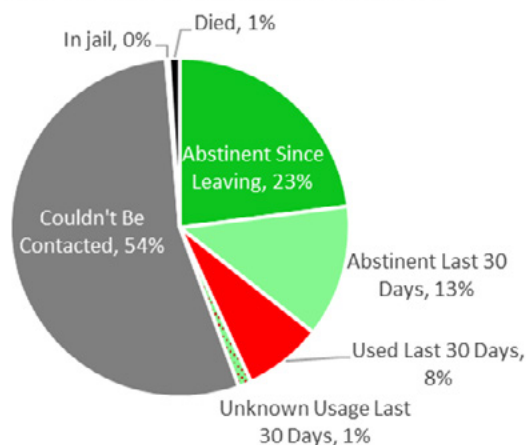
Abstinence At Six Months Post-Treatment
(among 6,683 patients discharged up to 4/30/20)



At 12 months post treatment, 35.6% of patients were reachable and claimed to have been abstinent for at least the last 30 days

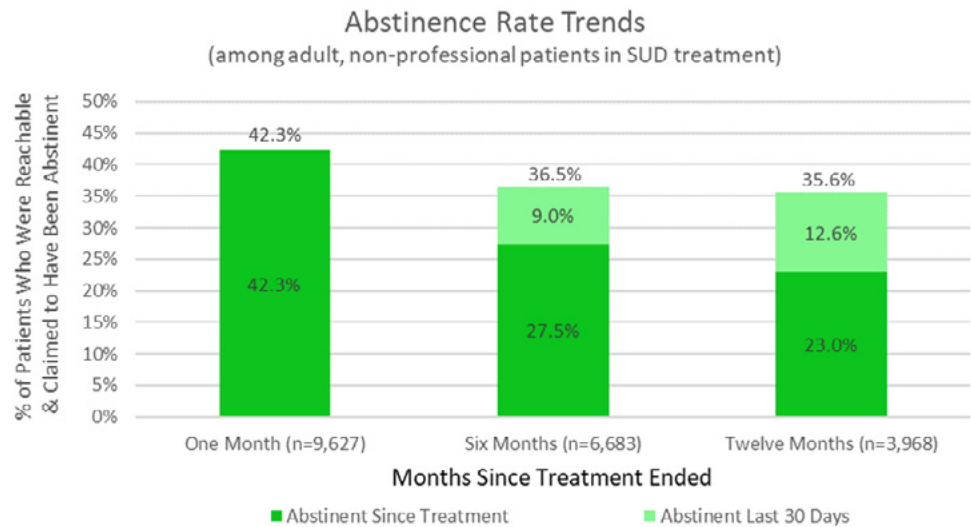
23% of the patients Vista attempted to reach at one-year post-treatment were reachable and claimed to have remained abstinent since treatment. Another 13% admitted to having relapsed since treatment but reported abstaining from all drugs and alcohol for at least the last 30 days. 8% of patients admitted to having used drugs or alcohol in the last 30 days. And, unfortunately, reputable sources reported that 1.0% of the patients that Vista attempted to reach at one-year post-treatment had died.

Abstinence At Twelve Months Post-Treatment
(among 3,968 patients discharged up to 10/31/19)



About 36% of patients reported not using drugs or alcohol in the last 30 days at both 6 months and 12 months post-treatment

As expected, the percentage of patients who reported having remained totally abstinent since treatment declined throughout the post-treatment year. However, the percentage of patients who reported having abstained from all drugs and alcohol in the most recent 30 days appeared to stabilize around six months post-treatment.

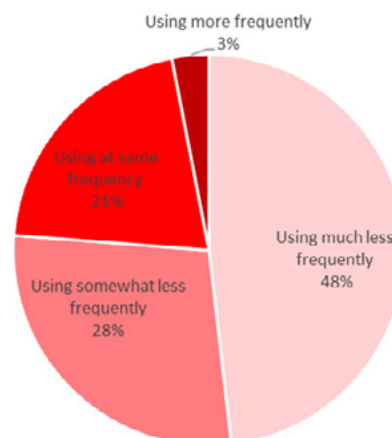


b. Even Patients Who Relapse Often Reduce How Frequently They Use

Three-quarters of patients who reported having recently used their primary drug of choice were using less frequently at twelve months post treatment than prior to intake

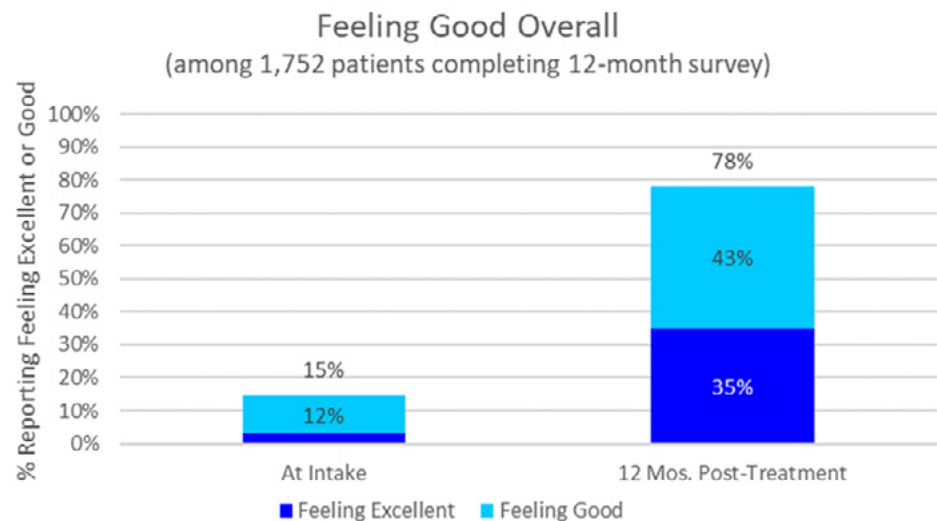
Among patients who reported at twelve months post-treatment having used their primary drug of choice of alcohol, heroin or opiates within the last 30 days, only 24% said they were using it as frequently or more frequently than they had been before they entered treatment.

Frequency of Last 30 Day Usage of Primary Drug of Choice at Twelve Months Post-Treatment Compared to at Intake
(among 164 patients addicted to alcohol, heroin or opiates who admitted using primary drug of choice in last 30 days at 12 months post-treatment)



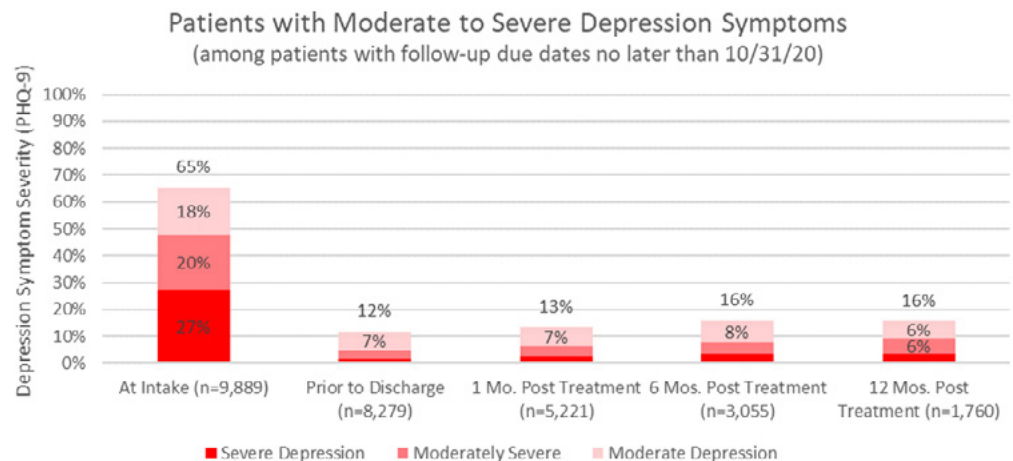
c. Patients Report Being Healthier Mentally and Physically

The percentage of patients reporting feeling “excellent” or “good” overall increased from 15% at intake to 78% at twelve months post-treatment



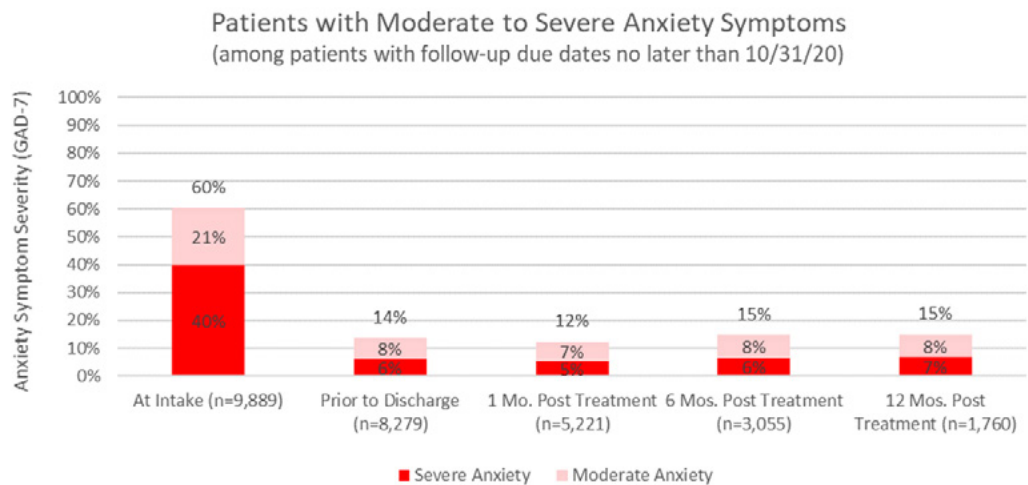
The percentage of patients reporting having moderate or severe symptoms of depression remained low post-treatment

While almost two-thirds (65%) of patients reported symptoms of moderate to severe depression at the start of treatment, only 12% reported such symptoms on their last survey prior to discharge. And, surprisingly, the percentage of patients reporting being moderately or severely depressed did not increase substantially throughout the entire post-treatment year.



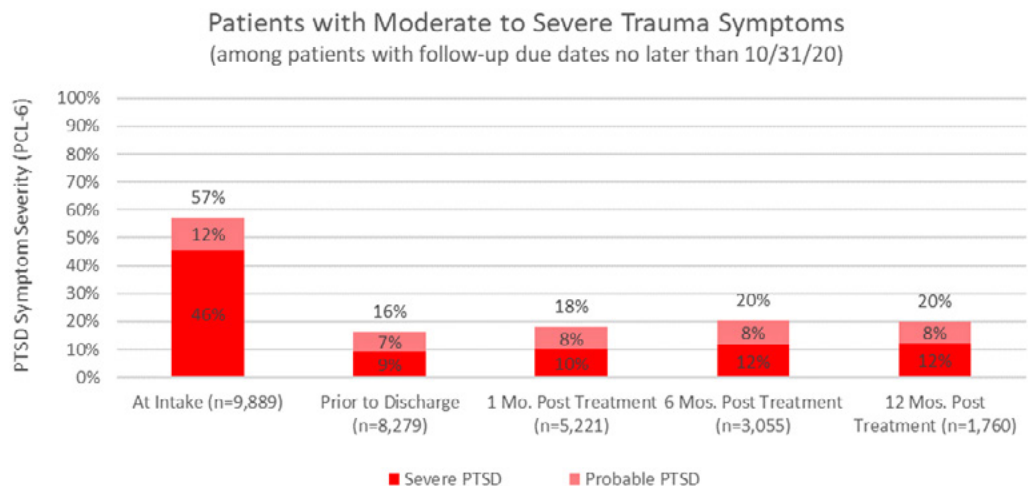
Nor did the degree of anxiety increase substantially post-treatment

The percentage of patients reporting moderate or severe symptoms of anxiety any time during the post-treatment year fluctuated little from the 14% reporting such symptoms on their last survey prior to discharge.



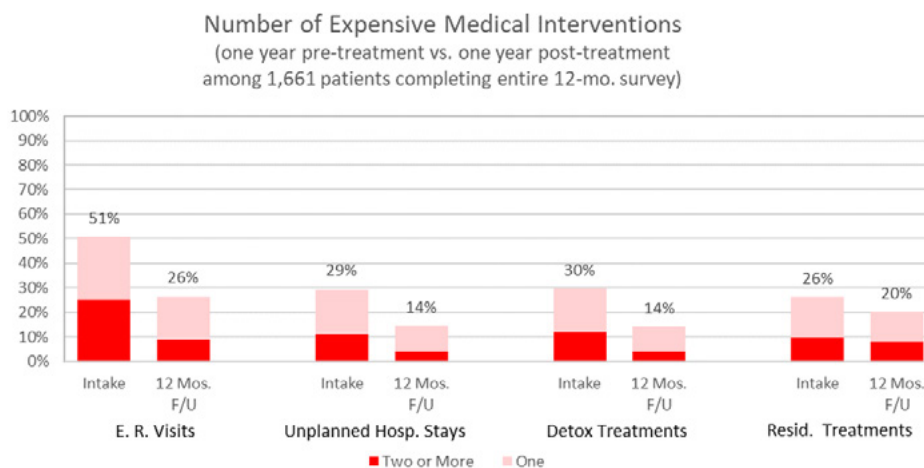
The percentage of patients struggling with PTSD also remained stable

Between 16% and 20% of patients reported symptoms indicating probable or severe PTSD on their last survey prior to discharge and throughout the post-treatment year.



During the first year post-treatment, patients required fewer medical interventions than would have been predicted

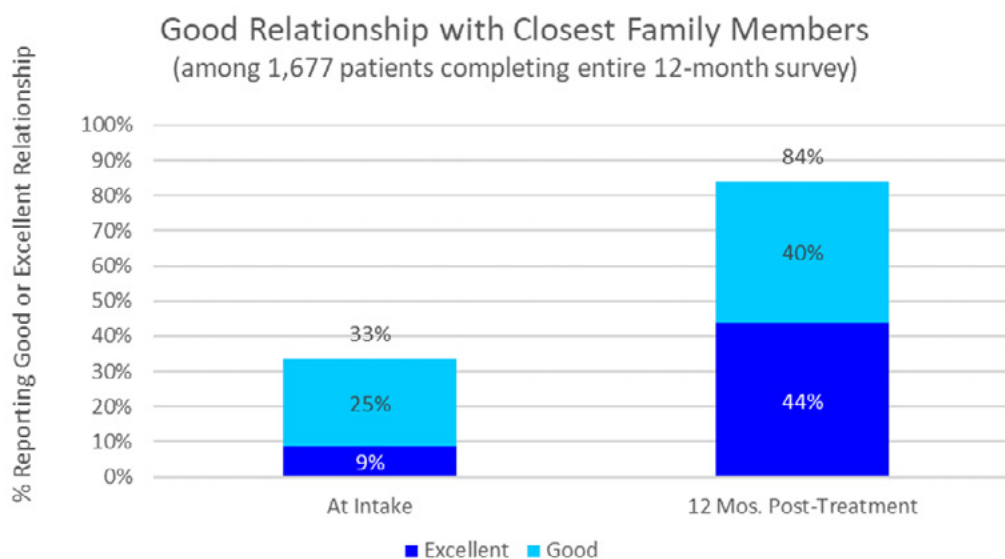
Patients visited hospital emergency departments, had unplanned hospital stays and attended detox or residential SUD treatment much less frequently during their post-treatment year compared to the year prior to entering treatment.



d) The Quality of Many Patients' Lives Improves Substantially by Twelve Months Post-Treatment

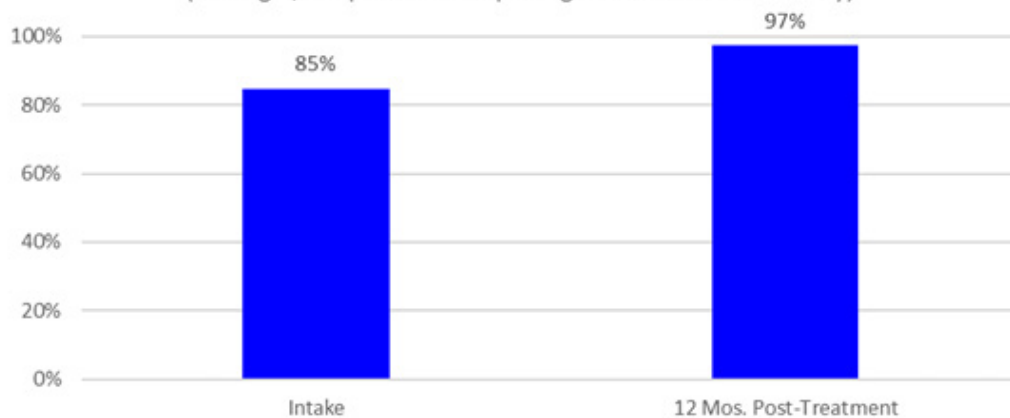
The quality of patients' relationships with their closest family members improved dramatically

While only 33% of patients reported having an excellent or good relationship with their close family members at the start of treatment, 84% reported having achieved this by one year post-treatment.



Almost all patients
had found a stable
place to live

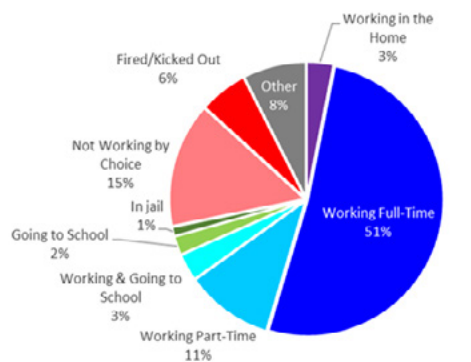
% Living in Stable Housing
(among 1,679 patients completing entire 12-month survey)



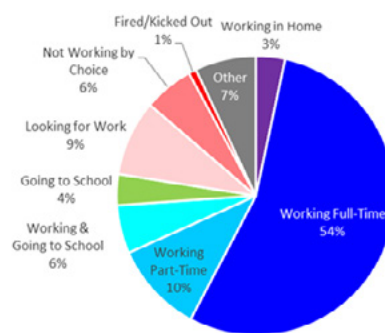
More were
working or going
to school

The percentage of patients working or going to school increased from 71% pre-treatment to 77% at six months post-treatment. The post-treatment employment numbers dropped in the most recent year due to challenges finding jobs during the pandemic.

Impact of Treatment on Employment
(among 1,679 adult, non-professional patients completing entire 12-month survey)



Working or Going to School at Intake: 71%



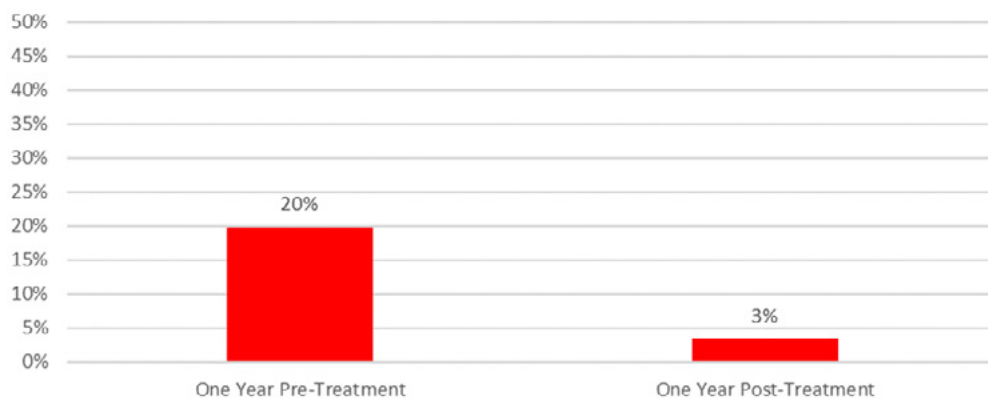
Working or Going to School at Twelve Months Post-Treatment: 77%



Few patients were arrested again

Only 3% of patients responding to the twelve-month post-treatment survey reported having been arrested due to an incident that happened after they left treatment. By comparison, 20% of these patients reported having been arrested in the year before they entered treatment.

% Charged with Serious Criminal Justice Offense
(among 1,677 patients completing entire 12-month survey)



MANY FACTORS AFFECT A PATIENT'S ABILITY TO REMAIN ABSTINENT

There are many different factors that appear to affect whether a patient is able to remain in recovery for a substantial period of time after treatment.

a. Successfully Completing Treatment

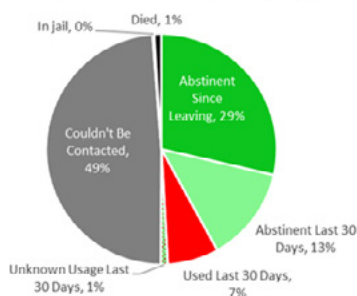
The strongest indicator of whether a patient is going to be able to remain abstinent post-treatment is whether they successfully completed treatment. The percentage of patients who were reachable and claimed to be abstinent post-treatment is much higher among patients who successfully completed treatment compared to those who left treatment early at all three time periods.

41.9% of patients who completed treatment said they were abstinent at one-year post-treatment compared to only 25.3% of patients who didn't complete treatment

Impact of Completing Treatment on Twelve-Month Post-Treatment Abstinence Rate

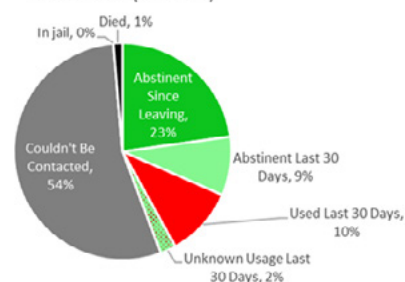
(among adult patients discharged between 3/1/16 and 10/30/19)

Completed Treatment (n = 2,344)



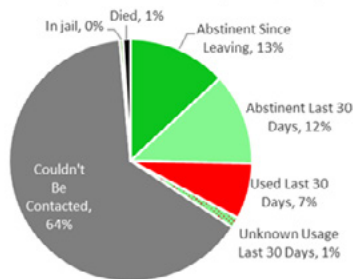
Abstinent At Least Last 30 Days: 41.9%

Completed One Level of Care, But Not All Recommended Treatment (n = 298)



Abstinent At Least Last 30 Days: 31.5%

Did Not Complete Treatment (n = 1,326)

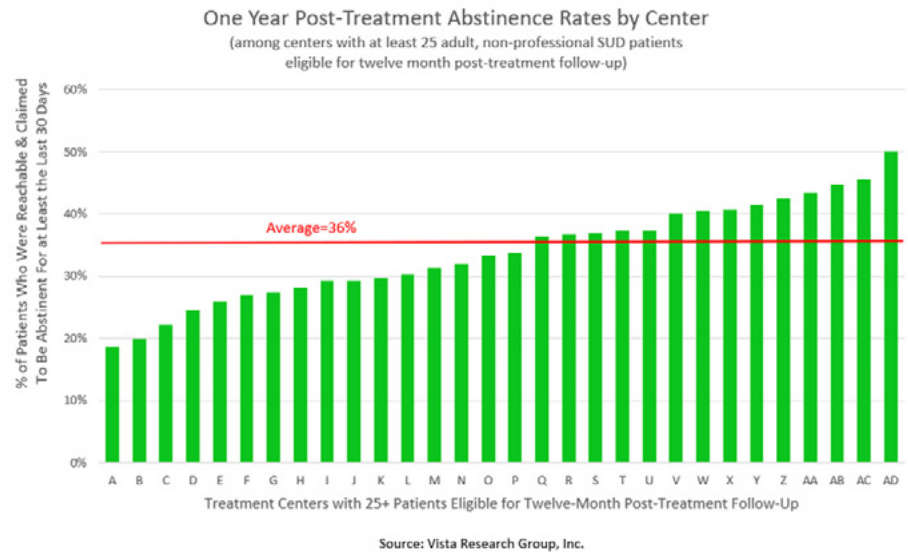


Abstinent At Least Last 30 Days: 25.3%

b. Treatment Center Effectiveness

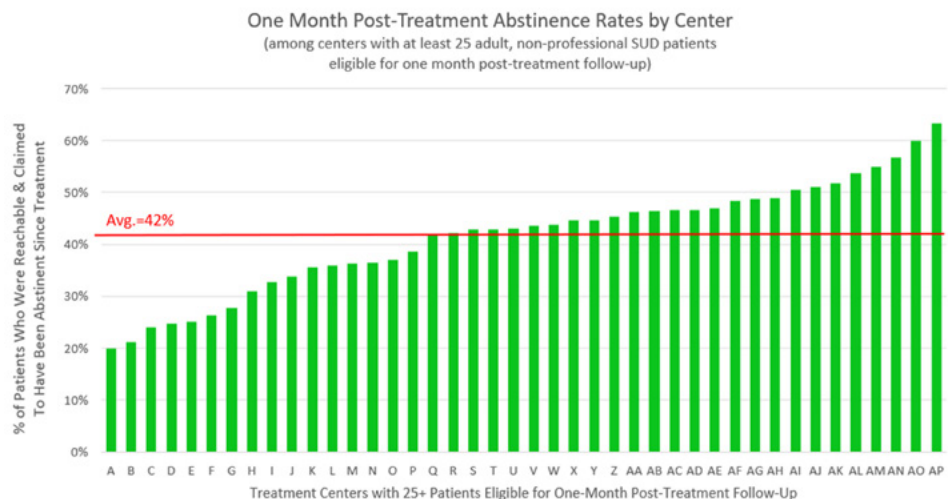
Even among this well-respected group of treatment centers, there was a wide range in treatment effectiveness

During this four-year period, Vista followed up with at least 25 patients from each of 30 different addiction treatment facilities at one year post-treatment. The number of patients who were reachable and claimed to have been abstinent for at least the last 30 days varied between 18% and 50% among these programs.



At one-month post-treatment, abstinence rates ranged between 20% and 63%

The variation between centers was even larger at one month post-treatment.

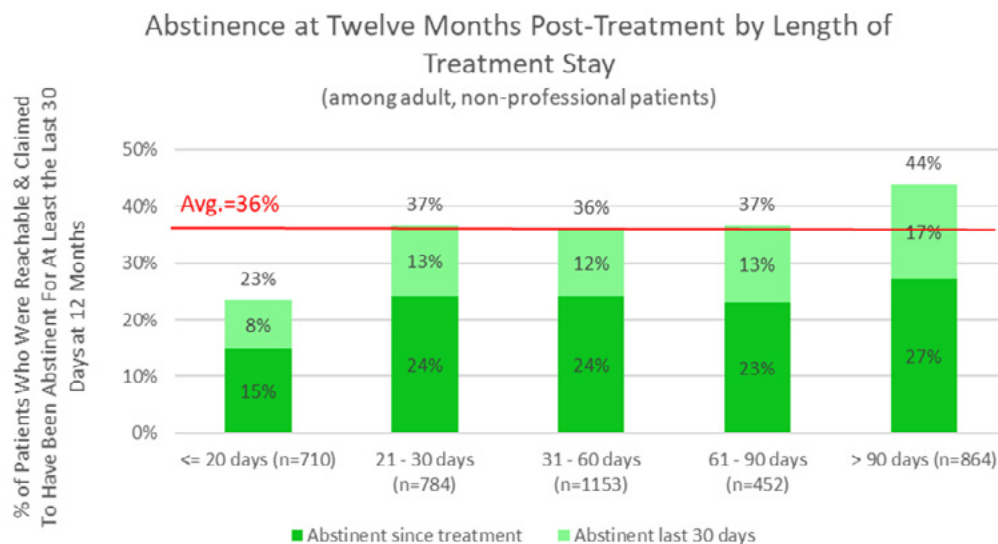


Since most, if not all, of the treatment programs who've invested in outcomes research have done so with the belief that their post-treatment outcomes would prove to be above average, it is surprising to see such a large variation in treatment effectiveness. If nothing else, this shows how valuable independent outcomes research data is to the addiction treatment field.

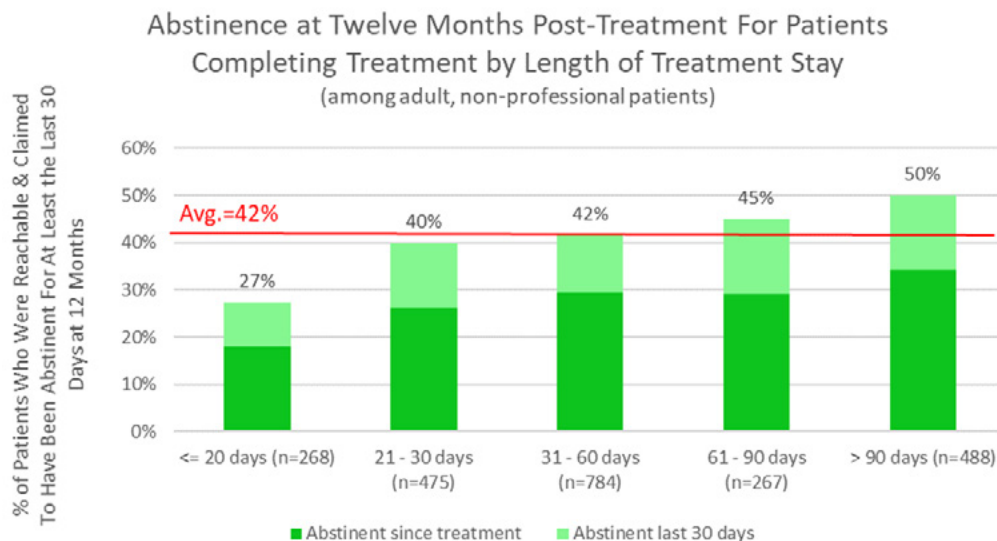
c. Length of Treatment Center Stay

The length of time a patient remains in treatment has a major impact on their ability to remain abstinent post-treatment

Patients with treatment stays of less than 20 days have very poor post-treatment abstinence rates.



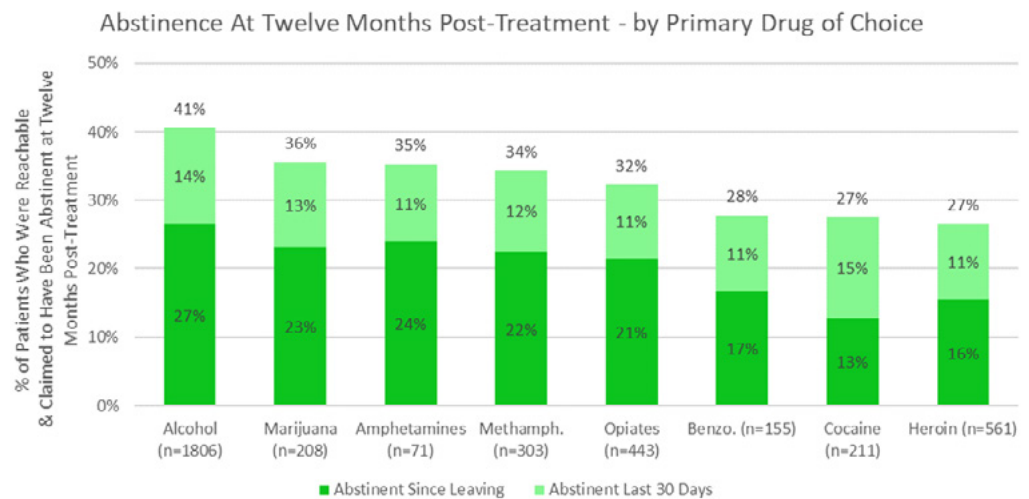
This remains true even after eliminating patients whose length of stay was so short because they left without completing treatment. Only 27% of the patients who successfully completed treatment in less than 21 days were reachable and abstinent at twelve months post-treatment.



d. Primary Drug of Choice

A patient's primary drug of choice makes a big difference in their ability to remain abstinent

Patients whose primary drug of choice was alcohol had a higher abstinence rate (41%) at twelve months post-treatment than patients preferring any other drug. Patients addicted to marijuana, amphetamines, methamphetamines, or opiates had twelve-month post-treatment abstinence rates between 32% and 36%. Vista's data indicates that the hardest drugs for patients to stop using long-term are heroin, cocaine and benzodiazepines; only 27% to 28% of patients addicted to any of these drugs said they had been able to abstain from all drugs or alcohol for at least the last 30 days at twelve months post-treatment.



e. The Actions Patients Take to Help Themselves Remain Abstinent

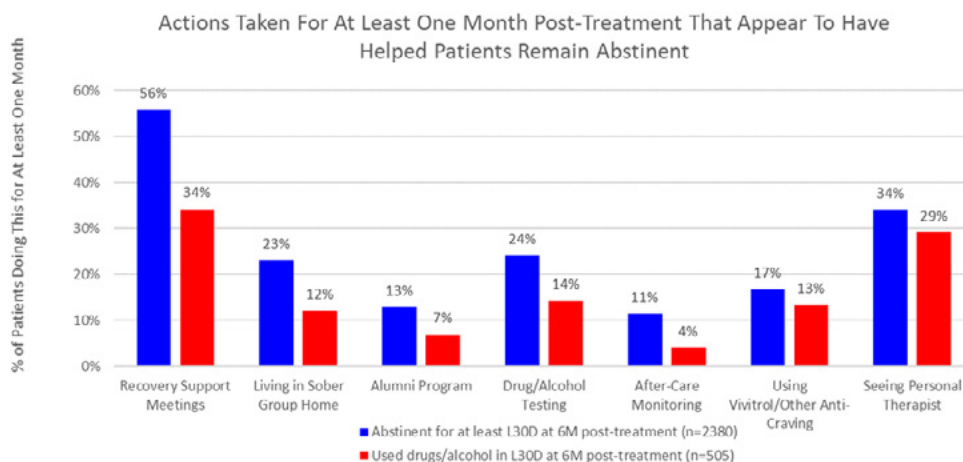
The two factors that appeared to have the largest impact on abstinence success at six months were attending recovery support meetings and living in a sober group home for at least one month post-treatment

Altogether, there were seven actions for which a significantly higher percentage of patients who reported doing them for at least a month claimed to be abstinent at six months post-treatment compared to those who didn't ($P<.05$).

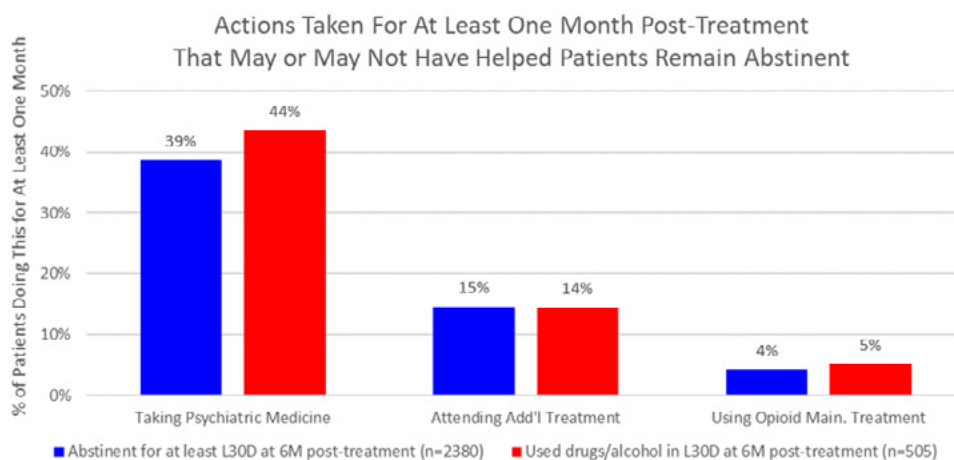
For example, 56% of the patients reporting being abstinent for at least the last 30 days at six months post-treatment said that they had regularly attended recovery support meetings for at least a full month after leaving treatment. By comparison, only 34% of the patients who weren't abstinent at six months post-treatment reported having done this.

Similarly, 23% of the patients abstinent at six months reported having lived in a sober group home for at least their first month post-treatment compared to only 12% of the patients who weren't abstinent at six months. Becoming involved in either an alumni program being offered by the treatment center or in an after-care monitoring program were also apparently useful in helping patients remain abstinent.

Other actions taken by a significantly higher number of patients ($P<.05$) who were abstinent at six months than by those who weren't were receiving random drug or alcohol testing, using Vivitrol or another anti-craving drug, or seeing a personal therapist.



Three other actions patients may have taken in an attempt to remain abstinent did not appear to improve outcomes. However, we must be careful not to assume cause and effect. For instance, the decision to start taking psychiatric medicine might have been made after a patient relapsed, not before. Additionally, the fact that taking an opioid maintenance drug such as buprenorphine or methadone did not improve outcomes for patients attending abstinence-based treatment centers does not imply that it wouldn't be helpful for patients in a medication-assisted treatment program.



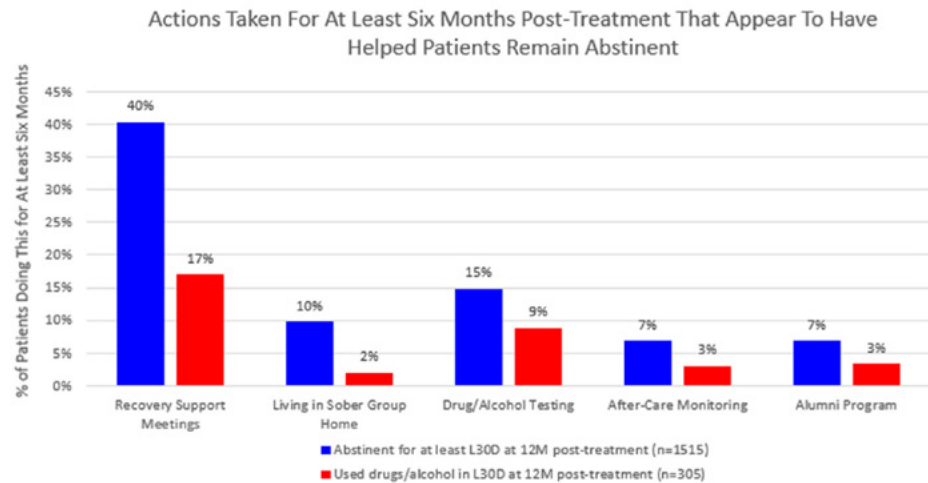
Across the first post-treatment year, continued participation in recovery support meetings helped more patients stay abstinent than any other action

There were five actions for which a significantly higher percentage of patients who reported doing them for six months or more reported being abstinent at twelve months post-treatment compared to those who didn't ($P < .05$).

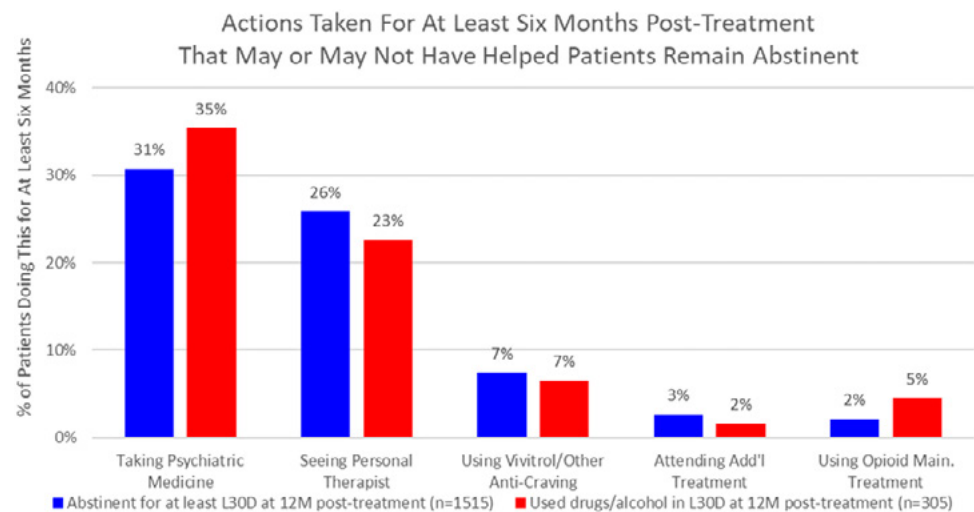
40% of the patients who reported being abstinent at twelve months post-treatment said that they had attended recovery support meetings for at least six months after leaving treatment. By contrast, only 17% of the patients who reported having recently used drugs or alcohol at this point had been attending recovery support meetings for the majority of the year.

While utilized by a smaller percentage of patients, living in a sober group home also appears to have been extremely beneficial. Five times as many patients who were abstinent one year after discharge reported having lived in a sober group home for at least six months compared to those who had relapsed.

Participating in randomized drug or alcohol testing, an after-care monitoring program or a center's alumni program also appeared to be helpful.



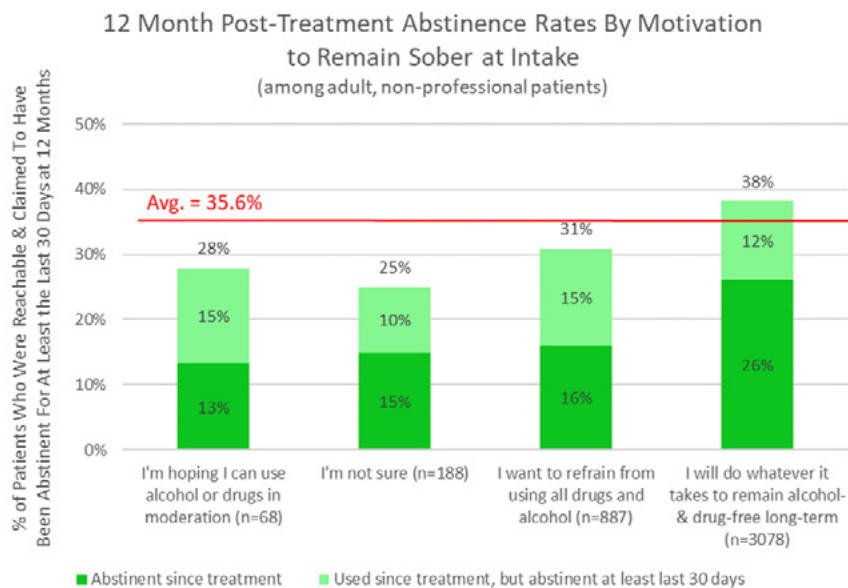
Keeping in mind the caveats mentioned above, the other five actions taken by patients for at least six months post-treatment do not appear to have been as beneficial.



f. Patient Motivation to Remain Abstinent

Patients who profess at intake to be highly motivated to remain abstinent have higher success rates

Among patients who reported at intake that they would “do whatever it takes” to remain drug- and alcohol-free long-term, 38% were abstinent at twelve months post-treatment. By comparison, only 31% of the patients who said they “want” to remain drug- and alcohol-free were abstinent.



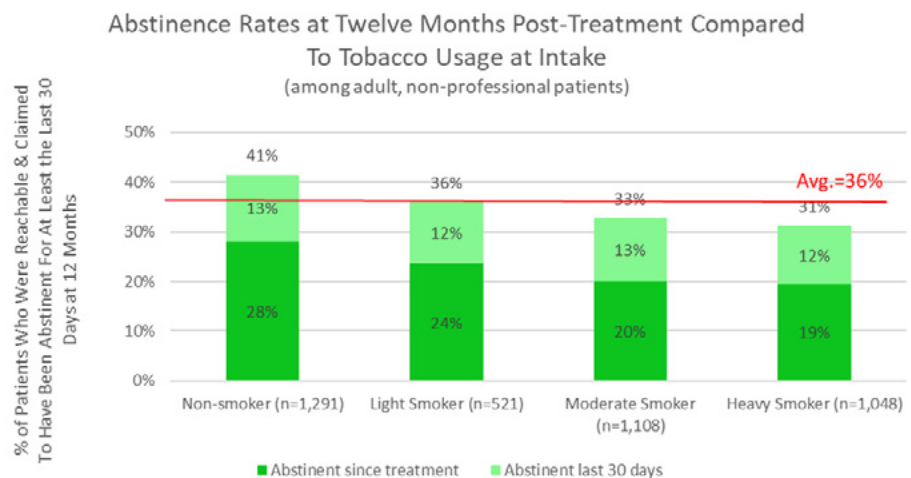
While we must be cognizant of their small base sizes, it's interesting that abstinence rates were even lower among those who said they weren't sure how motivated they were to remain abstinent or who hoped they could use drugs or alcohol in moderation. To better understand how well patients in the latter group fare post-treatment, Vista's research now allows patients in non-abstinence-based programs to define specific harm reduction goals and measures their success accordingly.



g. Smoking Status

Smokers have
a harder time
remaining
abstinent

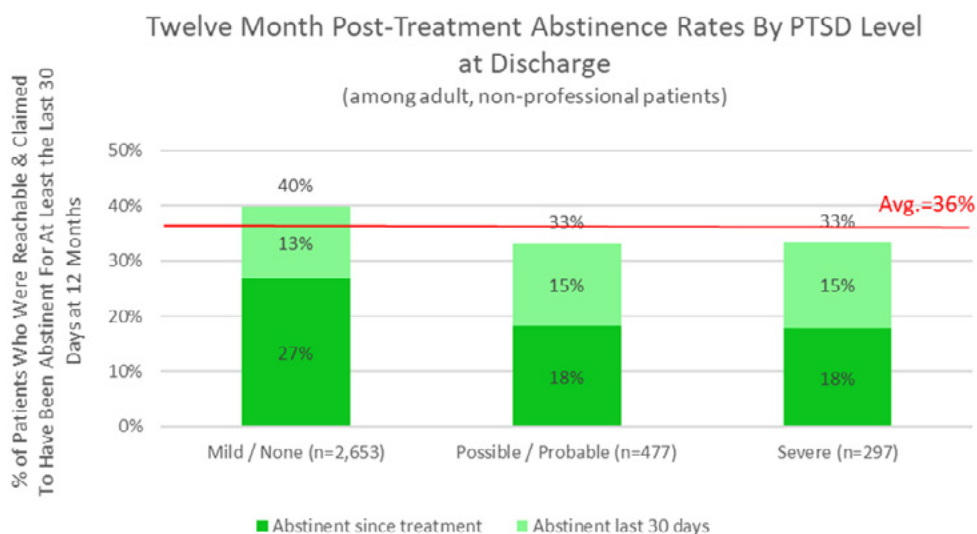
Another interesting finding is that abstinence success rates appear to correlate directly with the level of smoking or tobacco use patients reported at intake. Only 31% of heavy smokers (defined as those smoking at least a pack a day or its equivalent at intake) reported being abstinent at twelve months post-treatment. By comparison, 33% of moderate smokers, 36% of light smokers (no more than 5 cigarettes per day), and 41% of non-smokers reported being abstinent for at least the last 30 days at twelve months post-treatment.



h. Level of PTSD Symptoms at Discharge

Patients who leave treatment experiencing moderate to severe levels of PTSD symptoms appear to have a harder time remaining abstinent

Patients reporting even moderate levels of PTSD symptoms at the end of treatment appear to have a harder time remaining abstinent: only 33% of patients who reported possible, probable or severe symptoms of PTSD on their last survey before discharge were reachable and claimed to be abstinent at twelve months post-treatment. This compares with 40% of patients reporting only mild or no PTSD symptoms at discharge:



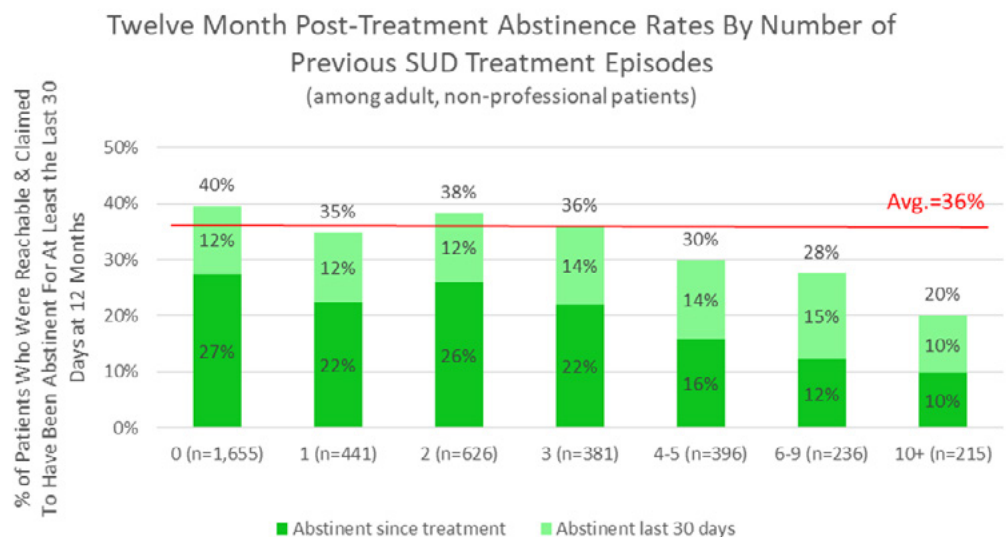
Interestingly, the level of depression and anxiety symptoms on the last survey before discharge did not appear to correlate in the same way with abstinence success. Patients reporting symptoms of severe depression or anxiety on their last survey before discharge had abstinence rates similar to, or higher than, patients with mild or no symptoms.



i. Number of Previous Substance Use Disorder Treatment Episodes

The number of previous SUD treatment episodes also affects ability to remain abstinent

Not surprisingly, patients who have attended SUD treatment four or more previous times appear to have a much harder time remaining abstinent than patients with fewer previous treatment episodes. Such patients have a significantly lower abstinence rate ($P < .05$) than patients who have never been in treatment before. Interestingly, so do patients who have attended treatment once before, indicating that for some, their third or fourth treatment episode may be the “sweet spot”.



RELAPSE, WHEN IT HAPPENS, TENDS TO HAPPEN QUICKLY

34% of patients who relapsed during their first year post-treatment reported relapsing in the first month

A final interesting finding from the post-treatment outcomes research is the speed with which patients relapse after leaving treatment.

Among those patients who reported relapsing sometime in their pre-treatment year, 7% reported relapsing within the first few hours after leaving treatment and a fifth (20%) within the first week. Just over a third (34%) relapsed within the first month. Only 10% of the patients who relapsed did so for the first time after achieving or more six months of sobriety.

